Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.





BALL MUMS

Also Bulbs-Carnations for 1950 Garden (hardy) Mums for 1950

Geo. J. Ball, Inc., West Chicago, Ill.





Forty-Niner

STARBRIGHT (Yoder)

Early intermediate golden yellow single, flowering naturally October 25. Excellent for the cloth house and May and June flowering in the greenhouse.

GOLDEN CHORD (Yoder)

Intermediate golden yellow Pompon. The variety ranks with Gold Coast and Sunnyside and flowers about November 10.

FORTY-NINER (Yoder)

High quality yellow, round Pompon. Flowers November 15. A very satisfactory cloth house variety.

GOLDEN HARVEST (De Petris)

Deep gold, small Pompon. Matures from the end of November into the first week of December. Has excellent growth and substance. A fine productive variety which keeps exceedingly well.

CHAMPAGNE (Yoder)

Intermediate yellow single. A freer grower than Lodestar and about the same season. Responds with Goldsmith and Sunnyside when lighted for December through March flowering.

CINDERELLA (Yoder)

Intermediate yellow single flowering in Yellow Cameo season. No tendency to blindness. Crowns readily, producing well on compound sprays. Can be flowered with Omega and Yellow Cameo from December through March.

New Varieties

PRISTINE (Yoder)

Early intermediate pure white Pompon. Responds with Irene for July and August flowering. At its best when period from pinch to shade does not exceed 28 days. Does not spot. The best white for the earliest shading in the cloth house.

POPCORN (Yoder)

Intermediate white Pompon flowering with Pinocchio. Outstanding white cloth house variety. Responds with Gold Coast. Turns slightly pink if grown outdoors in September. An exceptionally heavy producer.

ENCORE (Yoder)

Intermediate pure white Pompon to flower with Little America and Sea Gull in the shading program. A more satisfactory variety than Vesper and is excellent for late September and October in the cloth house.

MOONGLOW (Yoder)

Intermediate white Pompon. Fine for October and November flowering. Its natural season follows that of Vesper and finishes just ahead of Seafoam and Priscilla.

CRYSTAL BEAUTY (De Petris)

A large solid pure white Pompon with general all 'round perfection. Good sprays on strong petioles. Stem tall and vigorous. Foliage somewhat large. Matures November 25-30.

RUBICON (Yoder)

Early bronze red decorative to flower with Mary Mc-Arthur in July, August and early September. Superior color to Senecca and Red Rust during the summer period.

SAMOVAR (Yoder)

Rosewood bronze decorative flowering at the same time as Red Rust, both naturally and in the shading program. A good variety for September and October flowering.

SNOWCAP (Yoder)

Intermediate formal type white Pompon for Christmas and for January and February flowering. Growth habit an improvement over Snow and Revelation.

BUTTERSCOTCH (Yoder)

Intermediate golden bronze Pompon with same season as Cassandra but with an improved growth habit. Very high quality, hard Pompon. Excellent for the cloth house.

Always include some new varieties each year. Better kinds cost no more to grow than ordinary ones.



for 1950

SILVERSMITH (Yoder)

Large, very pure white decorative, immediately following Cameo. Strong, free growth with no tendency toward blindness. Responds with Goldsmith and Omega in the winter flowering program from December through March.

SNOWCREST (De Petris)

An intermediate solid white Pompon with a green immature center, full rounded form and excellent substance. Matures December 10-15 making it useful for a much desired white Pompon at that season. A good keeper and quite productive.

BOURBON (Yoder)

Intermediate rust bronze single. Very good form and substance. Flowers about the same time as Carnelia. Better growth habit and more productive than Carnelia, for December through March, flowering with Goldsmith, Cameo and Omega.

FESTIVAL (Yoder)

Small red single for Thanksgiving. Also now being flowered from December through March. The earliest of a group of outstanding red singles in which the growth habit and production is greatly improved over that of varieties listed in the past.

GALAXY (Yoder)

Intermediate bronze single. Same season as Viking and Cavalcade with an improved growth habit. Useful shade of bronze when lighted for the winter program.

HOLIDAY (Yoder)

Intermediate wide petaled red single flowering for Chrismas. Freer growth habit than Sarong, and therefore better suited for winter flowering.

MERRYMAKER (Yoder)

Crimson red single for the holiday season and for flowering through January, February and March. A larger and a better flower form than Christmas Star.

BALLERINA (Yoder)

Intermediate pink single. Early cloth house variety and similiar in shading response to the California Daisies. Better form and color than October Pink, and has a more upright growth habit. Best with some disbudding. Excellent for June flowering.



Red Dot

SOPRANO (Yoder)

Intermediate pink single to follow Ballerina in both the shading program and natural season. Fine for April, May and June flowering with Little America, and White Mensa.

DEFIANCE (De Petris)

Large, glowing true orchid pink Pompon of decorative type with a green immature center, making a very pleasing color. Excellent free growth and good production. Matures December 20-25.

QUEEN'S LACE (Yoder)

Early white spider. Responds with Silver Sheen and does well in the year 'round flowering program from April to November. It should receive the same cultural treatment, spacing, etc. as Silver Sheen. A very durable flower. Has been very much in demand for June weddings this past season.

Prices above new varieties, each: 50 cuttings, **\$5.00**; 100 to 450 cuttings, **\$9.00** per 100; 500 to 2450 cuttings, **\$8.00** per 100; 2500 or more cuttings, **\$7.00** per 100.

RED DOT (Rowe)

Typical Dot growth and flower type. Yellow-bronze with distinct bronze-red center. Excellent for cloth house and early shading. Valuable addition to the Dot family.

50 cuttings for **\$4.00**; 100 to 450 cuttings, **\$7.50** per 100; 500 to 2450 cuttings, **\$7.00** per 100; 2500 or more cuttings, **\$6.50** per 100.



SIX NEW

University of Illinois Pompons

Here are six promising new Pomps from the Dept. of Horticulture, University of Illinois. All six are mid-November blooming. Included are the big selling fall colors—white, bronze, yellow, red.

The Floriculture Division at Illinois has carried on extensive Mum breeding work for over 30 years. The program was started under Prof. Herman Dorner, is now carried on under Prof. Stanley Hall and Prof. John R. Culbert. Floriculture students do much of the actual work involved. It has already given the trade such valuable Pomps as Masterpiece, Illini Gold, Bobby, and others. These six newcomers were selected from several hundred promising seedlings by a committee of prominent Illinois florists. We believe they will be well worth including in your 1950 Mum plantings.

They will be propagated by us at West Chicago under royalty agreement with the University thru the Illinois State Florists' Association.

(All descriptions from the University of Illinois.)

ILLINI SNOWDRIFT

Oddity. Pure white when full open, soft yellow in the center when immature. The loosely arranged fringed florets give a spidery effect. The flowers are 3 inches in diameter. This variety is of special value for corsage, wedding, and novelty work. The keeping quality is satisfactory. The flowers are borne in fairly loose sprays. The stems are somewhat thin, but the production is good. Grow in spray form. Blooms November 15.

ILLINI BOUNTIFUL

Crisp white with chartreuse center when partly open, changing to pure, creamy white with deep cream center when mature. The color is attractive at all stages of development. The rather flat, full-centered flowers are 2 inches in diameter. The sprays are of uniform quality, and production is excellent. The stems are long and stiff. Grow in sprays. Blooms November 25.

ILLINI REDHEAD

Decorative pompon. Dark velvety cardinal red. Flowers are 134 inches in diameter. Good production of sprays of uniform quality on stiff stems with dark foliage. Blooms November 17.



Prof. Stanley Hall, Chief of Floriculture at the University of Illinois (right) and Vic Ball (left) pictured in a house of the new U, of Ill, pompons at West Chicago. Photo taken October 12. Note uniformity and heavy production of sprays.

ILLINI WARRIOR

Rich bronzy-orange, highlighted by tan reverse. Color holds unusually well. The flowers are $1\frac{1}{2}$ inches in diameter, have full centers, and are well-rounded in form. The heavy production is uniform in quality. Blooms November 20.

ILLINI BRAVE

Lemon yellow color remains bright. The flowers are 2 inches in diameter. This variety has exceptional vigor and is a heavy producer of long, stiff stems of uniform quality. Grow in spray form. Blooms November 16.

ILLINI HONEY

Deep honey color. Hard button type $1\frac{1}{4}$ inches in diameter. Rather compact sprays on strong stems that handle well. Good producer. Grown in spray form. Blooms November 17.

Prices above 6 varieties, each: 50 cuttings, **\$5.00**; 100 to 450 cuttings, **\$9.00** per 100; 500 to 2450 cuttings, **\$8.00** per 100; 2500 or more cuttings, **\$7.00** per 100. Minimum 50.

Combination Offer: 50 cuttings each of these six Illini varieties, **\$25.00**.



Better Mums for 1950!

TO OUR CUSTOMERS:

Our first Mum cutting catalog was issued in 1935. Good News was a featured novelty, and shading for early flowering was the big cultural development. Then as now, the three important rules of PROFIT-ABLE Mum growing were:

- (1) Plant uniformly well rooted, clean cuttings on time.
- (2) Use only the BEST VARIETIES.
- (3) Utilize all available information on cultural methods, insects and disease control.

Following these rules doesn't cost any money. But it does mean the difference between a mediocre crop and a first class, profitable one. This catalog is designed to help you accomplish all three of these objectives. It offers the finest cuttings available, when you want them; it shows the most generally accepted best varieties in each color class for each season. And last but not least, we have devoted five pages to the latest in proven information on successfully growing a PROFITABLE crop of Mums.

We offer SERVICE as well as cuttings. Any information we have on any phase of profitable Mum growing is yours. If you don't find it in this catalog, we'll be very happy to hear from you.

Yours for PROFITABLE Mum growing in 1950!

George K. Ball

President

From our own flowering trials of plants grown from cuttings we shipped last spring as well as personal inspection of stock from which our cuttings will be shipped this coming season, we are convinced that Stunt is on the way out. However, because of the nature of Stunt, WE CANNOT AND DO NOT GUARANTEE, STATE OR IMPLY, THAT CUTTINGS WE SUPPLY ARE FREE OF STUNT.

Instructions for Ordering

For the first time this year we offer a complete list of the best in Hardy or Garden Mums. All these varieties have been removed from our regular list and appear in a special HARDY or GARDEN MUM LIST beginning on page 13.

TERMS OF SALE

- 1. The minimum total order that can be accepted is 500 cuttings.
- 2. Fifty of each variety is the minimum that can be supplied.
- 3. More than 50 of a variety must be in multiples of 50.

Orders must be marked with a definite delivery date, such as May 10th—June 1st—etc. Orders marked "Early Delivery"—"Deliver when ready"—"Spring Delivery" are too indefinite.

Changes or cancellations on your order must be received at least 30 days before shipping time. We cannot accept changes or cancellations on Mum cutting orders later than 30 days before specified shipping date.

In making out your order please use special alphabetically arranged order blanks enclosed with this catalog.

SUBSTITUTIONS

We will substitute varieties as good or better for any items not listed in this catalog unless order is marked NO SUBSTITUTIONS.

SHIPPING INFORMATION

Special shipping instructions and address if different from your regular mail address should be shown on your order. All cuttings are shipped Railway Express, Air Freight or Air Express Collect and are in perfect condition before being accepted by the Express Company. Therefore, if there is any damage enroute from being broken, heated or frozen, call your express agent to inspect the same, marking on express receipt the condition of the package and amount of damage, etc. You must file claim, as our responsibility ceases when Express Co. accepts shipment. We cannot be responsible for the safe arrival of your cuttings.

We, Geo. J. Ball, Inc., give no warranty, express or implied, as to the productiveness of any seed, bulbs or plants we send out and we will not be in any way responsible for the crop. Our liability, in all instances, is limited to the purchase price of the seed, bulbs, or plants.



Large Flowering Standards

Types are abbreviated as follows: Inc.—Incurved; Ref.—Reflexed. Size of flower is indicated by S—Small; M—Medium; L—Large.

S-Indicates varieties we find most suitable for shading. P-Indicates varieties suitable for pot plants. Pinching and flowering dates given here are for normal flowering without shading or lights.

Note carefully instructions for ordering on page 3. No orders for less than 50 cuttings of a variety accepted.

YELLOW

Best vellows for August. *Good News; September, *Good News; October, *Indianapolis Yellow; November, Indianapolis Yellow; No apolis Yellow, Yellow Mefo; Thanksgiving, Yellow Chattanooga; December, Golden Mrs. Ross; Christmas, Tobin's Yellow.

,	chow.		D: 1:	2500	500 3450	100 450	50
	Name and Description	Matures	Pinching Date	2500 up per 100	500-2450 per 100	100-450 per 100	per 50
P	GOLD LODE. Light golden yellow. M. Ref	10-15	7-8	\$3.50	\$4.00	\$4.50	\$2.50
S	YELLOW CHIEF. Sport of Pink Chief. M. Inc	10-15	7-8		4.50	5.00	2.75
P	CELESTRA. Lemon yellow. S. Inc	10-15	7-8	3.50	4.00	4.50	2.50
SP	MRS. KIDDER. Deep lemon yellow. L. Inc	10-20	7-8	3.50	4.00	4.50	2.50
P	YELLOW AMBASSADOR. Light lemon yellow. L. Inc.	10-25	7-14	4.00	4.50	5.00	2.75
SP	BLAZING GOLD. Deep golden yellow. M. Inc	10-25	7-14	4.20	4.80	5.40	3.00
	SUNGLOW. Golden yellow. L. Inc		7-14	3.85	4.40	4.95	2.75
	GOOD NEWS. Deep lemon yellow. M. Inc		7-19	4.20	4.80	5.40	3.00
	INDIANAPOLIS YELLOW. Lemon yellow. M. Inc		7-20	4.20	4.80	5.40	3.00
S	YELLOW QUEEN. Sport of Orchid Queen. L. Inc		7-19	4.90	5.60	6.30	3.50
	YELLOW MONUMENT. Light lemon yellow. L. Inc	11-15	7-22	3.50	4.00	4.50	2.50
SP	BONAFFON DELUXE. Golden yellow. S. Inc	11-20	7-25	3.15	3.60	4.05	2.25
P	FRIENDLY RIVAL. Deep chrome yellow. L. Inc		7-25	3.85	4.40	4.95	2.75
	PURDUE. Lemon yellow		7-25	6.00	7.00	8.00	4.50
S	YELLOW MEFO. Lemon yellow. L. Inc		7-25	4.20	4.80	5.40	3.00
	MARIE DEPETRIS. Deep golden yellow. L. Inc		7-24	3.85	4.40	4.95	2.75
	HARVESTER. Deep canary yellow. L. Inc	11-23	7-24	4.90	5.60	6.30	3.50
	SUN GOLD. Lemon yellow. M. Inc		7-28	4.00	4.50	5.00	2.75
	BALL ENGLE. Yellow sport of Pearson. Inc		7-28	3.50	4.00	4.50	2.50
	WALTER ENGLE. Yellow sport of Pearson. Inc		7-28	3.50	4.00	4.50	2.50
S	GOLDEN PEARSON. Light golden yellow. M. Inc		7-28	3.50	4.00	4.50	2.50
	YELLOW CHATTANOOGA. L. Inc		7-28	3.85	4.40	4.95	2.75
	GOLDEN MRS. ROSS. Golden yellow. L. Inc		7-30	3.50	4.00	4.50	2.50
	GOLDEN MISTLETOE. Light golden yellow. L. Inc	12-10	8-1	3.50	4.00	4.50	2.50
P	TOBIN'S YELLOW. M. Inc		8-4	4.55	5.20	5.85	3.25
	METEORE. Lemon yellow. M. Inc	12-15	8-4	4.90	5.60	6.30	3.50

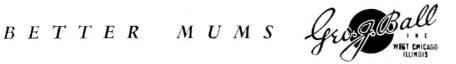
WHITE

Best whites for August, *Silver Sheen; September, *Betsy Ross; October, *Indianapolis White; November, Indianapolis apolis White, Marketeer; Thanksgiving, Chattanooga; December, December Glory; Christmas, Smith's Late White.

Name and Description	Matures	Pinching Date	2500 up per 100	500-2450 per 100	100-450 per 100	50 per 50
S WHITE CHIEF. Sport of Pink Chief. M. Inc	. 10-15	7-8		\$4.50	\$5.00	\$2.75
S SILVER SHEEN. M. Inc	. 10-20	7-8	3.85	4.40	4.95	2.75
P AMBASSADOR. Cream white. L. Inc	. 11-1	7-14	4.00	4.50	5.00	2.75
S ALBATROSS. L. Inc		7-14	3.85	4.40	4.95	2.75
SP SNOW WHITE. M. Inc	. 11-1	7-14	4.00	4.50	5.00	2.75

^{*}Must be shaded to flower at this time.

IMPORTANT: ABSOLUTELY NO CHANGES ON YOUR ORDER CAN BE ACCEPTED WITHIN 30 DAYS OF DELIVERY DATE.



Large Flowering Standards

WHITE—(Continued)

	Name and Description	Matures	Pinching Date	2500 up per 100	500-2450 per 100	100-450 per 100	50 per 50
S	BETSY ROSS. Ivory white. L. Inc	11-1	7-16	\$3.85	\$4.40	\$4.95	\$2.75
S	INDIANAPOLIS WHITE. M. Inc	11-8	7-20	4.20	4.80	5.40	3.00
	JEAN ELIZABETH	11-10	7-20	4.55	5.20	5.85	3.25
	MONUMENT. Ivory white. L. Inc	11-15	7-22	3.50	4.00	4.50	2.50
SP	MARKETEER. M. Inc.	11-18	7-25	3.85	4.40	4.95	2.75
S	MEFO. Ivory white. L. Inc.	11-20	7-24	4.20	4.80	5.40	3.00
	WHITE FRICK. White suffused pink. M. Inc		7-28	4.00	4.50	5.00	2.75
	INDIANA MARKET. White. L. Inc		7-28		5.00	5.50	3.00
	CHATTANOOGA. L. Inc.	11-25	7-28	3.85	4.40	4.95	2.75
	DECEMBER GLORY. Ivory white. M. Inc		7-31	3.85	4.40	4.95	2.75
P	MARGARET MOELLER. White. L. Inc	12-5	7-31	3.85	4.40	4.95	2.75
	WHITE MISTLETOE. M. Inc	12-10	8-1	3.50	4.00	4.50	2.50
P	SMITH'S LATE WHITE. Ivory white. M. Inc	12-15	8-4	4.55	5.20	5.85	3.25

PINK

Best Pinks for September, *Indianapolis Pink; October, *Orchid Queen; November, Orchid Queen; Thanks giving, Helen Frick.

Name and Description	Matures	Pinching Date	2500 up per 100	500-2450 per 100	100-450 per 100	50 per 50
S PINK CHIEF. Lavender. M. Inc	10-15	7-8	\$3.85	\$4.40	\$4.95	\$2.75
MAJOR BOWES. Deep lavender. M. Inc	10-20	7-12	4.00	4.50	5.00	2.75
SP J. W. PRINCE. Rose pink, M. Inc.	11-5	7-19	3.85	4.40	4.95	2.75
DR. ENGUEHARDT. Shaggy pink	11-5	7-19		4.50	5.00	2.75
S INDIANAPOLIS PINK. Deep lavender. M. Inc	11-8	7-20	4.20	4.80	5.40	3.00
S DARK PINK ORCHID QUEEN. Mauve pink. L. Inc		7-20	4.90	5.60	6.30	3.50
S ORCHID QUEEN. Orchid pink. L. Inc	11-10	7-20	4.55	5.20	5.85	3.25
THANKSGIVING PINK. Amaranth. M. Ref	11-23	7-24	3.85	4.40	4.95	2.75
P HELEN FRICK. Rose pink. M. Inc	11-23	7-28	3.85	4.40	4.95	2.75
EDWIN SEIDEWITZ. Lavender. M. Inc	11-25	7-28	3.50	4.00	4.50	2.50
PINK MISTLETOE. Lavender. M. Inc.	12-10	8-1	3.50	4.00	4.50	2.50

BRONZE AND RED

Best bronze and reds for August, *Detroit News; September, *Detroit News; October, *Indianapolis Bronze; November, Indianapolis Bronze, Mrs. Roy; Thanksgiving, G adjs Pearson; December, Bronze Mistletoe.

Name and Description	Matures	Pinching Date	2500 up per 100	500-2450 per 100	100-450 per 100	50 per 50
S DETROIT NEWS. Reddish bronze. M. Inc	11-5	7-19	\$4.20	\$4.80	\$5.40	\$3.00
S INDIANAPOLIS BRONZE. Buff bronze. M. Inc	11-8	7-20	4.20	4.80	5.40	3.00
BRONZE ORCHID QUEEN. Apricot buff. L. Inc	11-10	7-20	4.50	5.00	5.50	3.00
S ANACONDA. Deep coppery red. M. Inc	11-10	7-20	4.20	4.80	5.40	3.00
S MRS. ROY. Crimson. M. Inc	11-15	7-24	4.20	4.80	5.40	3.00
GARNET KING. Dark red. M. Ref	11-15	7-24	4.50	5.00	5.50	3.00
GLADYS PEARSON. Light buff bronze. M. Inc	11-25	7-28	3.50	4.00	4.50	2.50
OAK LEAF. Reddish bronze. M. Inc	11-25	7-28	3.50	4.00	4.50	2.50
P BRONZE FRICK. Light bronze. M. Inc		7-28	4.00	4.50	5.00	2.75
BRONZE MISTLETOE. Buff bronze. M. Inc	12-10	8-1	3.50	4.00	4.50	2.50

^{*}Must be shaded to flower at this time.



BETTER MUMS GroßBall FOR FLORISTS Pompons Singles and Anemones

Types are abbreviated as follows: Pom.—Pompon; Dec.—Decorative; Sgl.—Single; Anem.—Anemone. Size of flower is indicated by S-Small; M-Medium; L-Large.

S—Indicates varieties we find most suitable for shading. P—Indicates varieties suitable for pot plants.

D—Indicates varieties suitable to grow as disbudded pompons.

H-Hardy or garden types.

Pinching and flowering dates given here are for normal flowering without shading or lights.

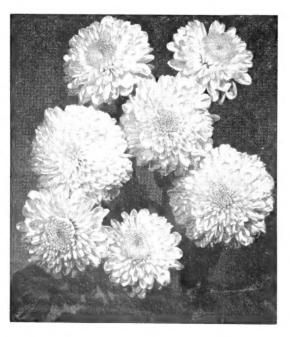
Note carefully instructions for ordering on page 3. No orders for less than 50 rooted cuttings of a variety accepted. Your total order must be for not less than 500 rooted cuttings.

YELLOW

Best yellows for August, *Gold Coast; September, *Gold Coast: October, *Mary L. Hall, Gold Coast; November, Constellation, Yellow Fellow; Thanksgiving, Goldsmith; December, Yellow Cameo; Christmas, Yellow Snow.

Name and Description	Matures	Pinching Date	2500 up per 100	500-2450 per 100	100-450 per 100	50 per 50
SH YELLOW IRENE. Light lemon yellow. S. Pom	10-15	7-8	\$3.50	\$4.00	\$4.50	\$2.50
SH RODELL IMPROVED. Light lemon yellow. M. Pom	10-20	7-8	3.50	4.00	4.50	2.50
S CREAM DOT. Apricot cream. M. Pom	10-25	7-14	6.50	7.00	7.50	4.00
S STARBRIGHT (New. See Novelties, inside front for						
complete description). Golden yellow. Sgl	10-25	7-14	7.00	8.00	9.00	5.00
S GOLD COAST. Deep lemon yellow. S. Pom	10-25	7-14	4.20	4.80	5.40	3.00
SD GOLDEN HERALD. Deep golden yellow. L. Dec	10-25	7-14	3.85	4.40	4.95	2.75
S YELLOW DOT. Yellow, bronze center. M. Pom		7-14	3.50	4.00	4.50	2.50
S ISHIDA. Semi-double yellow	10-25	7-14	5.50	6.00	6.50	3.50
SUNBURST. Semi-double bronze yellow	10-25	7 - 14		4.00	4.50	2.50
S YELLOW ARCADIA. Pernet yellow. M. Pom	10-28	7-14	3.85	4.40	4.95	2.75
S YELLOW DAISY. Deep lemon yellow. M. Sgl	11-1	7-14	4.00	4.50	5.00	2.75
SD MARY L. HALL. Lemon yellow. M. Pom	11-1	7-14	3.50	4.00	4.50	2.50
YELLOW CASSANDRA (New). Sport of Cassandra	11-5	7-20	7.00	8.00	9.00	5.00
BARCAROLE. Golden yellow. M. Pom	11-5	7-20	3.85	4.40	4.95	2.75
S NUGGETS. Light lemon yellow. S. Pom	11-5	7-20	3.50	4.00	4.50	2.50
S CONSTELLATION. Yellow. M. Dec	11-5	7-20	4.90	5.60	6.30	3.50

^{*}Must be shaded to flower at this time.



TWO EXCELLENT YELLOW POMPS

← Golden Chord

Fine for shading outdoors or inside. Flowers naturally November 10.

Sunnyside ->

Fine for Thanksgiving or later. Stands shipping and handling well.





Pompons Singles and Anemones

YELLOW-(Continued)

	Name and Description	Matures	Pinching Date	2500 up per 100	500-2450 per 100	100-450 per 100	50 per 50
S	INDAGOLD. Golden. M. Pom	11-7	7-20	\$6.50	\$7.00	\$7.50	\$4.00
S	YELLOW BUSHNELL. Pernet yellow. M. Pom	11-8	7-20	4.00	4.50	5.00	2.75
SPD	YELLOW BEAUTY. Golden yellow. L. Pom	11-10	7-19	3.50	4.00	4.50	2.50
	PIXIE. Deep golden yellow. S. Pom	11-10	7-20	3.50	4.00	4.50	2.50
SD		11-10	7-20	7.00	8.00	9.00	5.00
S	GOLDEN CHORD (New. See Novelties, inside						
	front for complete description). Golden yellow.						
		11-10	7-20	7.00	8.00	9.00	5.00
		11-10	7-20	3.85	4.40	4.95	2.75
	PRINCETON. Orange yellow. M. Dec	11-15	7-24	4.20	4.80	5.40	3.00
S	FORTY-NINER (New. See Novelties, inside front						
	for complete description). Round, yellow. Pom		7-24	7.00	8.00	9.00	5.00
	YELLOW FELLOW. Deep lemon yellow. M. Dec		7-24	3.85	4.40	4.95	2.75
P	SUNRAY. Light lemon yellow. M. Anem	11-15	7-24	3.85	4.40	4.95	2.75
	ILLINI BRAVE (New. See page 2 for complete						
	description). Lemon yellow. Button Pom		7-22	7.00	8.00	9.00	5.00
	SUSANNE MILLER. Buff yellow. L. Anem	11-18	7-24	3.50	4.00	4.50	2.50
D	YELLOW LONG ISLAND BEAUTY (New). Yel-						
	low sport of L. I. Beauty	.11-20	7-24	7.00	8.00	9.00	5.00
	YELLOW ROLINDA. Light buff yellow. M. Anem		7-25	3.50	4.00	4.50	2.50
D	GOLDSMITH. Golden yellow. M. Dec	11-25	7-28	3.85	4.40	4.95	2.75
	SUNNYSIDE. Golden yellow. M. Pom	11-25	7-28	3.85	4.40	4.95	2.75
	YELLOW BRISTOLITE. Sport of Bristolite. M. Pom	11-25	7-28		5.00	5.50	3.00
	GOLDEN SURPRISE. Sulphur yellow. S. Button	11-25	7-28		4.00	4.50	2.50
S	ILLINI GOLD. Deep golden yellow. M. Pom	11-25	7-28		4.00	4.50	2.50
D	GOLDEN JANE. Brilliant golden yellow. L. Sgl	11-28	7-28	3.85	4.40	4.95	2.75
P	YELLOW CORDOVA. Lemon yellow. M. Dec	11-30	7-28	3.85	4.40	4.95	2.75
	GOLDEN HARVEST (New. See Novelties, inside						
	front for complete description). Deep gold. S. Pom.	12-1	7-28	7.00	8.00	9.00	5.00
	CHAMPAGNE (New. See Novelties, inside front						
	for complete description). Yellow. Int. Sgl	12-1	7-28	7.00	8.00	9.00	5.00
	YELLOW CAMEO. Deep lemon yellow. M. Pom	12-5	8-1	4.20	4.80	5.40	3.00
	CINDERELLA (New. See Novelties, inside front for						
	complete description). Yellow Int. Sgl	12-5	8-1	7.00	8.00	9.00	5.00
	OMEGA. Lemon yellow. M. Pom	12-5	8-1	4.90	5.60	6.30	3.50
P	YELLOW RIVIERA (New). Yellow sport of Riviera	12-10	8-2	7.00	8.00	9.00	5.00
	YELLOW SUPREME. Buff yellow. L. Anem		8-2		4.00	4.50	2.50
	DECEMBER GOLD. Deep golden yellow. M. Dec	12-15	8-4	3.85	4.40	4.95	2.75
	CHRISTMAS CHEER. Small yellow button	12-18	8-4		4.00	4.50	2.50
		12-20	8-7	4.50	5.00	5.50	3.00
	VIBRANT. Deep lemon yellow. M. Dec	12-20	8-4	3.85	4.40	4.95	2.75
	GOLDEN ANNIVERSARY. Yellow Pom	12-25	8-7	5.60	6.40	7.20	4.00
	YELLOW SNOW. Deep lemon yellow. M. Pom	12-25	8-7	3.50	4.00	4.50	2.50
	YELLOW REVELATION (New). Sport of Revelation	12-25	8-7	7.00	8.00	9.00	5.00
	YULEFLAME. Yellow. Dec		8-7	5.60	6.40	7.20	4.00
	WINTERSET. Small yellow dec	1-1	8-7		4.50	5.00	2.75
	·						

IMPORTANT: ABSOLUTELY NO CHANGES ON YOUR ORDER CAN BE ACCEPTED WITHIN 30 DAYS OF DELIVERY DATE.



BETTER MUMS Sprongles and Anemones



Fine outdoor Pomps! Center bed is the new white Encore; outside beds, Popcorn. Note the bent pipe overhead frame that supports both the black sateen and the cheese cloth. "Cheese cloth" here is Seran, a new plastic material, somewhat expensive, but lasts several seasons. Photo taken at Yoder's, Ashtabula, Ohio, September 23. Left, Jake Miller of Yoder's; right, George K. Ball. Cuttings were benched June 24, shaded July 24, cut September 24.

WHITE

Best white for August, *Pinocchio; September, *Pinocchio; October, *Little America, Pinocchio; November, Sea Gull, Little America; Thanksgiving, Priscilla; December, Cameo; Christmas, Snow.

	Name and Description	Matures	Pinching Date	2500 up per 100	500-2450 per 100	100-450 per 100	50 per 50
SDH	SILVER BALL. L. Pom	10-15	7-8	\$3.50	\$4.00	\$4.50	\$2.50
	IRENE. S. Pom	10-15	7-8	3.50	4.00	4.50	2.50
S	PRISTINE (New. See Novelties, inside front for						
	complete description). Pure white. Int. Pom	10-20	7-8	7.00	8.00	9.00	5.00
	MINONG. S. Pom		7-8	3.85	4.40	4.95	2.75
	SNOW CLOUD. White. M. Pom	10-20	7-8	4.50	5.00	5.50	3.00
S	POPCORN (New. See Novelties, inside front for						
	complete description). White. Int. Pom	10-25	7-14	7.00	8.00	9.00	5.00
	COTTON TOP. Pure white		7-14	4.00	4.50	5.00	2.75
	PINOCCHIO. S. Pom	10-25	7-14	4.20	4.80	5.40	3.00
Р	GRANITE STATE. L. Pom.	10-25	7-12	4.20	4.80	5.40	3.00
S	ARCADIA. M. Pom.	10-28	7-14	3.85	4.40	4.95	2.75
	SEA GULL. Cream white. M. Pom		7-14	3.50	4.00	4.50	2.50
SD	WHITE DOTY. Ivory white. L. Pom	11-1	7-14	3.50	4.00	4.50	2.50
S	ENCORE (New. See Novelties, inside front for						
-	complete description). Pure white. Int. Pom	11-5	7-19	7.00	8.00	9.00	5.00
D	WHITE ANEMONE. M. Anem	11-5	7-19	4.00	4.50	5.00	2.75
S	REV. BUSHNELL. Cream white. M. Pom	11-8	7-20	4.20	4.80	5.40	3.00
	VESPER. M. Pom.	11-10	7-20	3.50	4.00	4.50	2.50
SD	WHITE MENSA. Ivory white. M. Sgl.	11-10	7-20	3.85	4.40	4.95	2.75
SPD	LITTLE AMERICA. M. Anem	11-10	7-20	3.15	3.60	4.05	2.25
SPD	RICHARD MANDEL. L. Pom	11-10	7-19	3.50	4.00	4.50	2.50

^{*}Must be shaded to flower at this time.



Pompons Singles and Anemones

WHITE—(Continued)

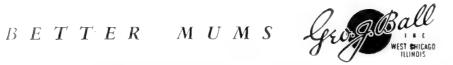
	Name and Description	Matures	Pinching Date	2500 up per 100	500-2450 per 100	100-450 per 100	50 per 50
	MOONGLOW (New. See Novelties, inside front for						
	complete description). White, Int. Pom	11-15	7-22	\$7.00	\$8.00	\$9.00	\$5.00
	ILLINI SNOWDRIFT (New. See page 2 for com-						
	plete description). White. Dec	11-15	7-22	7.00	8.00	9.00	5.00
	CHICAGO PEARL. Ivory white. M. Pom	11-15	7-22	3.50	4.00	4.50	2.50
	SHASTA. M. Anem	11-15	7-22	3.85	4.40	4.95	2.75
	WHITE FREIDA. Yellow cushion. L. Anem	11-15	7-22	3.50	4.00	4.50	2.50
	WHITE NORMA. White suffused with pink. L. Anem.	11-18	7-25	3.50	4.00	4.50	2.50
D	LONG ISLAND BEAUTY. White, yellow cushion.						
	L. Anem.	11-20	7-24	3.50	4.00	4.50	2.50
	MATCHLESS. White. M. Pom.	11-20	7-28	4.20	4.80	5.40	3.00
	SEAFOAM. M. Pom.		7-24	3.50	4.00	4.50	2.50
	PRISCILLA. M. Pom.	11-23	7-24	3.85	4.40	4.95	2.75
	ILLINI BOUNTIFUL (New. See page 2 for com-						
	plete description). White. Dec		7-28	7.00	8.00	9.00	5.00
-	WHITE USONA. Clear white. M. Pom.		7-28	5.50	6.00	6.50	3.50
	NEVADA. White, green cushion. M. Anem		7-28	3.85	4.40	4.95	2.75
D	WHITE VALENCIA (New). White sport of Valencia.	11-28	7-28	7.00	8.00	9.00	5.00
	CRYSTAL BEAUTY (New. See Novelties, inside	11.00	7 00	7.00	0.00	0.00	
ъ	front for complete description). Pure white. Pom.		7-28	7.00	8.00	9.00	5.00
Р	CORDOVA. Cream white. M. Dec	11-30	7-28	3.85	4.40	4.95	2.75
	ROYAL QUEEN. M. Pom.		7-31	3.50	4.00	4.50	2.50
	CAMEO. Ivory white. M. Pom.	12-5	8-1	3.85	4.40	4.95	2.75
	SILVERSMITH (New. See Novelties, page 1 for	12-10	8-1	7.00	8.00	0.00	5.00
	complete description). Pure white. Dec	12-10	8-1	3.50	4.00	9.00 4.50	5.00 2.50
D	YUKON. M. Sgl	12-10	8-2	3.50	4.00	4.50	2.50
D	SNOWCREST (New. See Novelties, page 1 for	12-10	0-2	3.50	4.00	4.70	2.50
	complete description). White. Int. Dec	12-12	8-1	7.00	8.00	9.00	5.00
	GARZA. M. Anem.	12-12	8-4	3.85	4.40	4.95	2.75
	SNOWCAP (New. See Novelties, inside front for	14-17	0-4	5.07	7.70	7.77	4.13
	complete description). White. Int. Pom	12-15	8-4	7.00	8.00	9.00	5.00
	SNOW. Ivory white. M. Pom.	12-30	8-7	3.50	4.00	4.50	2.50
	REVELATION. M. Pom.	12-30	8-7	3.15	3.60	4.05	2.25
	ILTERITOR, M. POIII	12)0	0 /	J /	2.00	1.07	/

PINK

Best pinks for August, *Carolyn Yosick; September, *Carolyn Yosick; October, *Masterpiece, Carolyn Yosick; November, Thyra, Masterpiece; Thanksgiving, Minuet; December, Riviera; Christmas, Minstrel.

Name and Description	Matures	Pinching Date	2500 up per 100	500-2450 per 100	100-450 per 100	50 per 50
S JEWELL. Lavender. S. Pom	10-15	7-8	\$3.50	\$4.00	\$4.50	\$2.50
DARK PINK JEWELL. Deep lavender. S. Pom	10-15	7-8	3.50	4.00	4.50	2.50
S CAROLYN YOSICK. Lavender pink. S. Dec		7-8	4.90	5.60	6.30	3.50
S CAPT. COOK. Deep rose pink. M. Pom		7-8	3.50	4.00	4.50	2.50
S ECSTASY. Deep lavender. L. Button Pom		7-14	4.50	5.00	5.50	3.00
S JESSIE. Light lavender. M. Pom	10-25	7-14	3.50	4.00	4.50	2.50
MARY McARTHUR. Pink, shaded bronze. S. Pom	10-25	7-14	5.60	6.40	7.20	4.00
S PINK DOT. Light pink. M. Pom	10-25	7-14	3.50	4.00	4.50	2.50
S OCTOBER PINK. Light lavender. M. Sgl	10-28	7-14	4.20	4.80	5.40	3.00
S BALLERINA (New. See Novelties, page 1 for com-						
plete description). Pink. Int. Sgl	11-1	7-16	7.00	8.00	9.00	5.00

^{*}Must be shaded to flower at this time.



Pompous Singles and Anemones

PINK—(Continued)

Name and Description	Matures	Pinching Date	2500 up per 100	500-2450 per 100	100-450 per 100	50 per 50
FAIR MAID. Light shell pink. M. Pom	11-1	7-16	\$4.00	\$4.50	\$5.00	\$2.75
SD LILLIAN DOTY. Light rose pink. L. Pom		7-16	3.50	4.00	4.50	2.50
PINK CALIFORNIA DAISY		7-16	3.50	4.00	4.50	2.50
W. H. BUCKINGHAM. Rose Pink. M. Sgl		7-16	4.00	4.50	5.00	2.75
DARK PINK BULKELEY. Dark rose pink. M. Pom		7-20	4.20	4.80	5.40	3.00
SPD THYRA. Lavender. L. Pom	11-10	7-19	3.85	4.40	4.95	2.75
LINDA LOU. Pink, yellow cushion. Med. Int. Anem	11-10	7-19	3.85	4.40	4.95	2.75
SPD QUEEN OF PINKS. Lavender. L. Pom	11-10	7-19	3.85	4.40	4.95	2.75
SPD MASTERPIECE. Tourmaline pink. M. Pom	11-15	7-22	3.50	4.00	4.50	2.50
S SOPRANO (New. See Novelties, page 1 for com-						
plete description). Pink, Int. Sgl	11-15	7-22	7.00	8.00	9.00	5.00
D PINK LONG ISLAND BEAUTY (New). Pink						
sport of L. I. Beauty	11-20	7-24	7.00	8.00	9.00	5.00
ORCHID BEAUTY. Orchid, golden cushion. M. Anem.	11-15	7-22	3.50	4.00	4.50	2.50
SD FREIDA. Light lavender, yellow cushion. L. Anem		7-22	3.50	4.00	4.50	2.50
S BROCADE. Cameo pink. M. Sgl		7-24	5.50	6.00	6.50	3.50
SD NORMA. Pink petals, salmon cushion. L. Anem		7-25	3.50	4.00	4.50	2.50
SD DARK PINK NORMA. Deep lavender. L. Anem	11-18	7-25	3.50	4.00	4.50	2.50
MINUET. Mauve to rose pink. M. Pom	11-25	7-28	4.20	4.80	5.40	3.00
USONA. Lavender. M. Pom		7-28	3.50	4.00	4.50	2.50
HASEGAWA PINK. Lavender. M. Sgl	11-25	7-28	3.50	4.00	4.50	2.50
PD BEAUTIFUL LADY, Deep lavender. L. Anem	11-25	7-28	3.50	4.00	4.50	2.50
D VALENCIA. Orchid pink. L. Sgl		7-28	3.85	4.40	4.95	2.75
D DARK PINK VALENCIA. Orchid pink. M. Sgl	11-28	7-28	3.85	4.40	4.95	2.75
D ENCHANTRESS. Deep pink, L. Anem	12-5	8-1	3.50	4.00	4.50	2.50
P RIVIERA. Luminous pink. M. Dec	12-10	8-1	3.85	4.40	4.95	2.75
P DARK PINK RIVIERA. Deep pink sport of Riviera	12-10	8-1	5.00	6.00	7.00	4.00
ROSALIND. Rose pink. M. Sgl	12-10	8-1	3.15	3.60	4.05	2.25
D DARK PINK SUPREME. Lavender. L. Anem	12-10	8-2	3.50	4.00	4.50	2.50
MINSTREL. Lavender pink. Pom	12-20	8-7	5.60	6.40	7.20	4.00
DEFIANCE (New. See Novelties, page 1 for com-						
plete description). True orchid pink. Dec. Pom	12-20	8-7	7.00	8.00	9.00	5.00
PINK TREASURE ISLAND. Light lavender. M. Dec	12-20	8-7	3.50	4.00	4.50	2.50

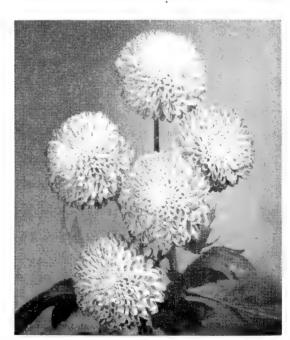


Butterscotch -

Real "Butterscotch" color. Exceptionally hard flower. Shades well outdoors.

- Riviera

A fine pink pomp for December.





Pompons Singles and Anemones

BRONZE AND RED

Best bronze and reds for August, *Firebird; September, *Seneca; October, *Bronze Masterpiece; November, Red Rust, Bronze Masterpiece; Thanksgiving, Bronze Goldsmith; December, Debonair; Christmas, Christmas Star.

		,	,	,			
	Name and Description	Matures	Pinching Date	2500 up per 100	500-2450 per 100	100-450 per 100	50 per 50
S	ADELAIDE. Dark reddish bronze. S. Pom	10-23	7-12	\$4.00	\$4.50	\$5.00	\$2.75
SD	JEMIMA. Dark reddish bronze. M. Pom	10-23	7-12	4.00	4.50	5.00	2.75
	BONTON. Bronze. M. Pom		7-12	6.50	7.00	7.50	4.00
S	BRONZE DOT. Sport of Pink Dot	10-25	7-12	3.50	4.00	4.50	2.50
	RED DOT (New. See Novelties, page 1 for com-						
	plete description)	10-25	7-12	6.50	7.00	7.50	4.00
S	FIREBIRD. Dark reddish bronze. M. Dec		7-14	3.50	4.00	4.50	2.50
	OCTOBER BRONZE. Light bronze. M. Sgl		7-16	4.50	5.00	5.50	3.00
S	SENECA. Orange bronze. M. Dec		7-14	4.90	5.60	6.30	3.50
	BRONZE CALIFORNIA DAISY		7-14	3.50	4.00	4.50	2.50
	GRENADIER		7-14	4.00	4.50	5.00	2.75
	BRONZE BUCKINGHAM. Light orange bronze. M. Sgl.	11-3	7-16	4.00	4.50	5.00	2.75
S	BUTTERSCOTCH (New. See Novelties, page 1	1.1.5					
	for complete description.) Golden Bronze. Int. Pom.		7-20	7.00	8.00	9.00	5.00
C	CASSANDRA. Orange bronze. M. Pom		7-20	3.85	4.40	4.95	2.75
	RED RUST. Reddish bronze. L. Pom		7-20	4.90	5.60	6.30	3.50
	RED DAISY, Deep red. M. Sgl.	11-5	7-14	4.20	4.80	5.40	3.00
5	RUBICON (New. See Novelties, inside front for	115	7 20	7.00	0.00	0.00	£ 00
	complete description). Bronze-red. Dec. Pom	11-8	7-20	7.00	8.00	9.00	5.00
	BITTERSWEET. Bittersweet red. M. Sgl		7-19	3.85 4.20	4.40	4.95	2.75
c		11-0	7-19	4.20	4.80	5.40	3.00
3	SAMOVAR (New. See Novelties, inside front for complete description). Rosewood bronze. Dec. Pom.	11.10	7-19	7.00	8.00	9.00	5.00
	NAVAHO. Deep Crimson. M. Pom		7-19	4.20	4.80	5.40	3.00
	SYLVANNA. Orange bronze. M. Sgl		7-19	3.50	4.00	4.50	2.50
D	THE TITAN. Scarlet crimson. L. Anem		7-19	3.50	4.00	4.50	2.50
	BRONZE BROCADE. (New.) Apricot Salmon,	11-10	7-19	3.70	4.00	7.70	2.70
3	sport of Brocade	11-15	7-22	7.00	8.00	9.00	5.00
SPD	BRONZE MASTERPIECE. Rosewood bronze. M. Pom.		7-22	3.50	4.00	4.50	2.50
0.2	ILLINI HONEY (New. See page 2 for complete		,	5470	2100	21,70	2.70
	description). Light bronze. Button Pom	11-17	7-23	7.00	8.00	9.00	5.00
	ILLINI REDHEAD (New. See page 2 for complete					-	
	description). Red Bronze. Button Pom	11-17	7-23	7.00	8.00	9.00	5.00
		11-15	7-22	4.50	5.00	5.50	3.00
\cdot S	RED PRINCETON. Brazil Red. M. Dec	11-15	7-24	4.20	4.80	5.40	3.00
P	GYPSY. Light reddish bronze. S. Anem	11-15	7-22	3.50	4.00	4.50	2.50
	NOVEMBER BRONZE. Orange bronze. M. Pom		7-23	4.50	5.00	5.50	3.00
	ILLINI WARRIOR (New. See page 2 for complete						
	description). Bronze. Button Pompon	11-20	7-25	7.00	8.00	9.00	5.00
	BOURBON (New. See Novelties, page 1 for com-						
	plete description). Rust-bronze. Int. Sgl	11-20	7-25	7.00	8.00	9.00	5.00
	RUSTICON. Rust red. M. Pom	11-20	7-25	4.20	4.80	5.40	3.00
	CATHERINE. Light reddish bronze. M. Dec	11-20	7-25	3.50	4.00	4.50	2.50
	LEGAL TENDER. Bronze and gold, M. Dec	11-20	7-24	3.50	4.00	4.50	2.50
PD	RED ROLINDA. Deep reddish bronze. M. Anem	11-23	7-24	3.50	4.00	4.50	2.50
	FESTIVAL (New. See Novelties, page 1 for com-						
	plete description). Red. S. Sgl	11-25	7-28	7.00	8.00	9.00	5.00

^{*}Must be shaded to flower at this time.



Pompons Singles and Anemones

BRONZE AND RED—(Continued)

Name and Description	Matures	Pinching Date	2500 up per 100	500-2450 per 100	100-450 per 100	50 per 50
BRISTOLITE. Orange bronze. M. Pom	11-25	7-28	\$4.50	\$5.00	\$5.50	\$3.00
GOVERNOR LAKE		7-28	3.50	4.00	4.50	2.50
D BRONZE GOLDSMITH. Mars orange. M. Dec	11-25	7-28	3.85	4.40	4.95	2.75
BRONZE MINUET. Bronze Pom	11-25	7-28	5.60	6.40	7.20	4.00
YOLANDA. Light orange bronze. S. Anem	11-25	7-28	3.50	4.00	4.50	2.50
D APRICOT VALENCIA. L. Single	11-28	7-28	3.85	4.40	4.95	2.75
HARMONY.	11-30	7-28	4.00	4.50	5.00	2.75
GALAXY (New. See Novelties, page 1 for com-						
plete description). Bronze. Int. Sgl	12-5	7-28	7.00	8.00	9.00	5.00
D BRONZE SUPREME. Bronze. Sport of Supreme.						
L. Anem.	12-10	8-1	3.50	4.00	4.50	2.50
D RED SUPREME (New). Red sport of Supreme.						
L. Anem.		8-1	7.00	8.00	9.00	5.00
CAVALCADE. Mandarin red. M. Pom.		8-1	5.00	5.50	6.00	3.25
S DEBONAIR. Crimson red. L. Pom		8-1	4.20	4.80	5.40	3.00
P BRONZE RIVIERA (New). Sport of Riviera		8-1	7.00	8.00	9.00	5.00
SARONG. Crimson scarlet. M. Sgl	12-15	8-4	4.20	4.80	5.40	3.00
HOLIDAY (New. See Novelties, page 1 for com-						
plete description). Wide petaled red. Int. Sgl		8-4	7.00	8.00	9.00	5.00
CHRISTMAS STAR. Scarlet red. M. Sgl	12-20	8-7	5.60	6.40	7.20	4.00
MERRYMAKER (New. See Novelties, page 1 for						
complete description.) Crimson red. Sgl	12-20	8-7	7.00	8.00	9.00	5.00

Spider Varieties

Name and Description	Matures	Pinching Date	500 up per 100	100-450 per 100	50 per 50
KAY TASHIMA. White	10-25	7-14	\$6.00	\$6.50	\$3.50
QUEEN'S LACE (New. See Novelties, page 1 for					
complete description). White	11-1	7-14	8.00	9.00	5.00
MRS. R. A. WALKER. Deep lavender	11-1	7-14	6.00	6.50	3.50
SUE SALLY JONES. Golden	11-5	7-19	6.00	6.50	3.50
WHITE RAYONANTE. White		7-19	6.00	6.50	3.50
MAMORU. Buff bronze	11-5 →	7-19	6.00	6.50	3.50
MISS GENE HARWOOD. Buff bronze	11-5	7-19	6.00	6.50 -	3.50
PEGGY ANN HOOVER. Pink	11-10	7-20	6.00	6.50	3.50
RED SPIDER. Magenta	11-5	7-19	6.00	6.50	3.50

IMPORTANT: ABSOLUTELY NO CHANGES ON YOUR ORDER CAN BE ACCEPTED WITHIN 30 DAYS OF DELIVERY DATE.



Garden (HARDY) Varieties

For the first time we offer a complete list of Garden Mum cuttings. Our cuttings are propagated by specialists and we are confident you will find them of excellent quality and the stock true to name and disease-free. Thru our annual Garden Mum trials here at West Chicago we plan to keep our list up-to-date with the finest varieties as they become available.

We heartily recommend the starred (*) varieties as a source of outdoor cutting material during September and October. Try some of the dwarf, compact varieties for pot plants. There are colors in the garden varieties not found in the regular greenhouse list.

Minimum order 500 cuttings, 50 of any one variety.

	500 up per 100	100-450 per 100	50 per 50
ACHIEVEMENT. Deep salmon pink. Short. September 20	\$5.50	\$6.00	\$3.25
ADIRONDA. Bright bronze Pompon. Short. October 10	5.50	6.00	3.25
*AIR-WAY DEBUT (Youdath, 1947). Golden bronze, overcast flaming orange.	,,,,		0,15
3 in. flower. Medium. October 10.	5.50	6.00	3.25
*ALLEGRO. Shrimp pink. Tall. October 15	5.00	5.50	3.00
*AMBER GLOW. Brilliant rosy bronze, Tall. October 8	5.50	6.00	3.25
AMBROSIA. Peach with undertones of rose and bronze. Medium. September 6.	7.50	8.00	4.25
AUTUMN SONG (U. of Chicago). Outstanding large wine-rose. Medium. Sept. 12.	6.50	7.00	3.75
AVALANCHE. Snow-white; large flowers. Tall. October 5	4.50	5.00	2.75
AVIATOR. Dark reddish bronze. Small Pompon. October 23	5.00	5.50	3.00
BAMBI (U. of Chicago). Fawn-yellow with amber center. Medium. Sept. 14	5.50	6.00	3.25
*BARBARA SMALL (University of Chicago). Pinkish lavender. Tall. September 10.	5.50	6.00	3.25
*BETTY. Upright apple-blossom pink with deep rose center. Tall. September 28.	5.50	6.00	3.25
BOKHARA (Bristol, 1947). Soft crimson and wine shades. Full double. Medium.	,,,,		
Oct. 10	6.50	7.00	3.75
*BONFIRE. A fine frost-resistant double red. Tall. October 1	4.50	5.00	2.75
*BRONZE PYRAMID. Orange-bronze, large flowers, wiry stems. Tall. October 15.	5.50	6.00	3.25
*BURGUNDY. Large double wine-red. Tall. October 5	4.50	5.00	2.75
BUTTERBALL (U. of Minn.). Butter-yellow. Low, compact plant. Medium. Sept. 1.	5.50	6.00	3.25
CALCITE. White with pale yellow center. Heavy bloomer. Medium. Sept. 15	5.50	6.00	3.25
*CANDLELIGHT. Cream white, yellow center. September 25	5.50	6.00	3.25
CAPT. JOHN SMITH. Double pink. Short. September 25	4.50	5.00	2.75
*CARNIVAL (Bristol, 1948). Glowing burnt orange. Fully double. Tall. Oct. 10.	14.50	15.00	7.75
*CATHERINE COLLINS. New, long-stemmed early yellow Pompon. Tall. Sept. 25.	5.50	6.00	3.25
*CHARLES NYE (U. of Chicago). Fully double, buttercup-yellow. Tall. Sept. 25.	7.00	7.50	4.00
CHIPPEWA (U. of Minn.). Bright mallow-purple. Medium. September 15	5.50	6.00	3.25
CHIQUITA (U. of Chicago, 1947. Lemon yellow. Compact. Pompon. Medium.			
Oct. 5	7.00	7.50	4.00
*CHRIS COLUMBUS. White Pompon with yellow buds. Tall. September 15	5.00	5.50	3.00
CORAL SEA. Salmon-buff suffused with coppery rose. Short. October 1	4.50	5.00	2.75
COURAGEOUS. Crimson-red; double flowers. Frost-resistant. Tall. Oct. 5	6.50	7.00	3.75
*CYDONIA. Double, mahogany-red. Tall. October 5	4.50	5.00	2.75
DAWNROSE (U. of Chicago, 1949). Bright medium pink, flesh color at margin.			
Medium. Oct. 15	9.50	10.00	5.25
*DEE DEE AHRENS (U. of Minn.). Free flowering, pure white. Tall. Sept. 15	5.50	6.00	3.25
*DEFIANCE (U. of Chicago, 1949). Golden yellow twilled petals. Tall. Sept. 17	7.50	8.00	4.25
DRIFTED SNOW. A mound of double white flowers, shaded yellow. Medium.			
Sept. 15	5.50	6.00	3.25
*DR. LONGLEY (U. of Minn., 1949.) Fully double, bright rose-pink. Medium.			
Sept. 10	9.50	10.00	5.25
EARLY BRONZE. Orange bronze. Small Pompon. September 15	4.50	5.00	2.75
EARLY YELLOW. Light golden yellow. Small Pompon. September 15	4.50	5.00	2.75
EARLY WONDER. Lavender. Medium decorative. September 25	4.00	4.50	2.50
*ELKTON. Double Pompon; blush pink tinted with lavender. Tall. October 10	5.50	6.00	3.25
*D		•	

^{*}Best varieties for cutting.



BETTER MUMS GROSSBALL FOR FLORISTS Garden (HARDY) Varieties

	500 up per 100	100-450 per 100	50 per 50
*EMBER, Orange-bronze. Tall. October 10	\$4.50	\$5.00	\$2.75
ERMINE (U. of Chicago, 1949). Large wide petaled ivory white. Medium. Oct. 1.	9.50	10.00	5.25
*FRAGRANT. Double white; long stems. Fine for cutting	5.50	6.00	3.25
*GOBLIN. Double reddish bronze. Tall. September 20	4.50	5.00	2.75
GOLDEN CARPET (Bristol, 1949). Golden yellow Pompon. Short. Sept. 15	14.50	15.00	7.75
*GOLDEN HOURS (U. of Chicago, 1948). Free flowering, bright, deep lemon.	1 1.,,0	13.00	7.77
Sept. 10	6.50	7.00	3.75
HARBINGER (U. of Chicago). Fine bronze with golden tone. Medium. Sept. 8.	5.50	6.00	3.25
*HONEYCOMP (Vader 10/9) Small colder valley Pemper Medium Sept. 25	7.00	7.50	4.00
*HONEYCOMB (Yoder, 1948). Small golden yellow Pompon. Medium. Sept. 25.	9.50	10.00	5.25
HUNTSMAN (Bristol, 1949). Brilliant crimson. 3 inch double flowers. Tall. Oct. 10.	7.00	7.50	4.00
*JAMES EADIE. Double yellow; fine for cutting, Tall. October 5 JUDITH ANDERSON. Golden yellow, small Pompon. Very dependable. Medium.	7.00	7.50	
Oct. 15	4.50	5.00	2.75
KARL A. REICHE. (Bristol, 1948). Blend of old rose and red. Medium. Sept. 25.	7.50	8.00	4.25
KING MIDAS. Light lemon yellow. Medium. Decorative. September 30	4.50	5.00	2.75
LAVENDER LADY. Large silvery lavender. Tall. October 8	5.50	6.00	3.25
*MAGNIFICENT (U. of Chicago, 1949). 4 inch flowers of plum red. Tall. Oct. 1.	9.50	10.00	5.25
*MEDITATION (U. of Chicago, 1948). Light jasper red and maize yellow. Tall.			
Oct. 6	6.50	7.00	3.75
M. J. COSTELLO (U. of Chicago). Dwarf golden yellow with bronze shading.		(00	2.25
Short. Sept. 20	5.50	6.00	3.25
*MODEL O' PERFECTION. White button. Tall. Oct. 15	4.50	5.00	2.75
MORNING GLOW. Mauve-pink Pompon. Medium. October 1	5.50	6.00	3.25
MORNING STAR. Soft primrose-yellow. Medium. September 25	5.50	6.00	3.25
MRS. DUPONT. Peach-pink tinted with rosy salmon-bronze. Tall. Oct. 5	5.00	5.50	3.00
*MRS. FISCHER. Double clear white. Tall. October 10	4.50	5.00	2.75
MRS. S. P. ROTAN. Double golden yellow shaded orange. Medium. October 5	5.50	6.00	3.25
NYE'S FAVORITE (1949 Introduction). Lavender pink flowers with golden shad-			
ings. Adapted for cutting or potting. Medium. Sept. 12	7.50	8.00	4.25
OLD GOLD. An outstanding variety. Golden yellow Pompon. Medium. Sept. 20.	5.50	6.00	3.25
OLIVE LONGLAND (U. of Chicago). 3 inch, apricot pink flowers. Medium. Oct. 1.	7.00	7.50	4.00
ORIENTAL. Double orchid. Medium	4.50	5.00	2.75
PEPITA (U. of Chicago, 1947). Egg-shell white button Pompon; darker center.			
Medium. Sept. 29	6.50	7.00	3.75
*PINK BEAUTY. Bright salmon-pink. Medium. Sept. 25	4.50	5.00	2.75
POLAR ICE (U. of Chicago). Pure white. Double, 3 inch flowers. Medium. Sept. 15.	6.50	7.00	3.75
POMPONETTE. Excellent early yellow. Short. September 15	5.50	6.00	3.25
POWDERPUFF (Bristol, 1949). Pure white cushion. Short. Sept. 10	11.50	12.00	6.25
*PURPLE STAR (U. of Minn.). Star appearance, Dahlia-purple. Medium. Sept. 5.	4.00	5.00	2.75
*RED GOLD (U. of Minn.). Bright red and orange-gold Pompon. Medium. Sept. 15.	5.50	6.00	3.25
RED RIDING HOOD. Outstanding bright red; very frost resistant. Tall. October 1.	5.50	6.00	3.25
RED VELVET. Double velvety crimson. Medium. October 4	4.00	4.50	2.50
ROSITA (U. of Chicago, 1947). Light Persian rose, button Pompon. Medium.	4.00	1.50	2.70
Sept. 28	7.00	7.50	4.00
RUBY POMPON. Ruby crimson. Medium. Pompon. October 5	4.50	5.00	2.75
SALMON PRECOSE (English). Large, salmon rose. Low growing. Short. Sept. 1.	7.50	8.00	4.25
SAM WILLISTON. Fiery red, growth similar to Cushions. Short. September 30	4.50	5.00	2.75
SCARLET CRIMSON. Bright in color, long lasting. Medium. Sept. 20	5.50	6.00	3.25
SEPTEMBER BRONZE. Golden bronze Pompon. Frost-resistant. Medium. Sept. 12.	4.50	5.00	2.75
SEPTEMBER CHEER. Rich cherry-red. Nice, compact growth. Medium. October 4.	4.50	5.00	2.75
SEPTEMBER GEM. Tiny yellow button Pompon. Medium. October 15	4.50	5.00	2.75
SEPTEMBER SUNSHINE. Semi-double bright yellow. Medium. Sept. 20	6.50	7.00	3.75
SEQUOIA. Rich, mellow amber. Medium. October 4	5.50	6.00	3.25
SERENE. Outstanding double white with pink tint. Medium. October 10	5.50	6.00	3.25
SERENITY (Yoder, 1948). Creamy white, daisy type flowers. Medium. Sept. 25	6.50	7.00	3.75
ozzaza (2000), 1710). Oreany white, daisy type nowers. Medium. Sept. 2)	0, 30	7.00	3.17

^{*}Best varieties for cutting.



BETTER MUMS GROBBALL FOR FL Garden (HARDY) Varieties

	500 up per 100	100-450 per 100	50 per 50
*SILVER PINK (U. of Minn., 1948). Soft pink with silvery sheen. Medium. Sept. 15.	\$7.50	\$8.00	\$4.25
SNOWFALL (U. of Chicago, 1947). White; slight cream center. Medium. Sept. 28.	6.50	7.00	3.75
*SPELLBOUND (Yoder, 1948). 3 in. decorative flowers of striking lavender pink.		•	
A solid compact bush. Medium. September 25	6.00	6.50	3.50
*SUNAPEE (U. of N. H.). Double, rich yellow Pompon. Tall. Sept. 15	5.50	6.00	3.25
SUN BEAM. Butter-yellow blooms on neatly shaped plants. Short. October 1	4.50	5.00	2.75
*SYMPHONY. Blend of mauve, coppery pink and lavender. Tall. Oct. 12	4.50	5.00	2.75
TANGERINE (U. of Chicago, 1947). Large, unusual fluffy flowers of Spanish	2170	,,,,,	
orange. Medium. September 27	6.50	7.00	3.75
TAPESTRY (Bristol, 1949). Rich pink. Double 3 inch flowers. Medium. Sept. 20.	14.50	15.00	7.75
THE CHIEF. Scarlet and gold. Medium. October 5	4.50	5.00	2.75
TIFFANY ROSE. Brilliant deep rose, faint cream undertone. Medium. Sept. 30	4.50	5.00	2.75
*VIOLET (U. of Minn). Dahlia-like, incurved, deep amaranth-purple. Tall. Sept. 15.	6.50	7.00	3.75
WELCOME. Early mallow purple. Medium. September 1	4.50	5.00	2.75
*WHITE CLOUD. White with delicate pink shading. Tall. September 25	4.50	5.00	2.75
*WHITE WONDER (Bristol, 1947). Ball-shaped white Pompon. Tall. Sept. 25.	5.00	5.50	3.00
*W. P. SNYDER (U. of Neb., 1948). Apricot-orange and pink. Double 2 inch			
flowers. Medium. Sept. 10	7.50	8.00	4.25
WYCHWOOD. (U. of Chicago, 1948). Canary yellow. Medium. Sept. 20	6.50	7.00	3.75
YELLOW AVALANCHE. Soft yellow. Sport of White Avalanche. Tall. Oct. 5	7.00	7.50	4.00
*YOUDATH'S WHITE. Large flowered, double white. Medium. October 5	4.50	5.00	2.75
*ZANTHA (U. of Chicago). Double canary-yellow, ball-shaped. Medium. Sept. 30.	5.50	6.00	3.25
CUSHION VARIETIES	500 up per 100 \$4.50	100-450 per 100 \$5.00	50 per 50 \$2.75
CHAMPION CUSHION. Deep bronze	4.50	په خون 5. 00	2.75
MAJOR CUSHION Double door pink door not fade. Best pink Cushion	4.50	5.00	2.75
MAJOR CUSHION. Double, deep pink, does not fade. Best pink Cushion	4.50	5.00	2.75
WHITE CUSHION. White, shaded pink at center	4.50	5.00	2.75
YELLOW CUSHION. Double golden yellow	5.50	6.00	3.25
SPOON VARIETIES	<i>y.y</i> 0	0.00	J
SPOON VARIETIES	500 up per 100	100-450 per 100	50 per 50
CARDINAL SPOON (1949 Introduction). Cardinal red. October 1	\$7.50	\$8.00	\$4.25
GOLDEN SPOON. Golden yellow. October 7	4.50	5.00	2.75
ORCHID SPOON. Orchid-pink. October 10	4.50	5.00	2.75
ROSE SPOON. Rose-pink, October 10		2000	
		5.00	
*WHITE SPOON Pure white October 10	4.50	5.00 5.00	2.75
*WHITE SPOON. Pure white. October 10		5.00 5.00 5.00	

^{*}Best varieties for cutting.

COMBINATION OFFERS

For growers who are not familiar with varieties, but who want a well-balanced assortment, we offer the three following collections which include the better varieties.

SPECIAL OFFER No. 1

SPECIAL OFFER No. 2

SPECIAL OFFER No. 3

500 rooted cuttings, our selection; 50 each of 10 taller varieties for cutting. \$25.00.

500 rooted cuttings, our selection; 50 each of 10 medium to short varieties for bedding. \$25.00.

500 rooted cuttings, our selection; 50 each of 5 varieties for cutting, 50 each of 5 varieties for bedding. \$25.00.



Growing Better Mums

By Vic Ball

AS YOU RECEIVE CUTTINGS

First, if wilted at all upon arrival, dip them in cold water and let them stand a few hours before planting. It will stiffen them up. If they are lightly frozen upon arrival, they can ordinarily be revived by thawing them very gradually. Keep them just above freezing for half a day, then warm up gradually.

ABOUT EARLY BUDDING

The symptoms: Long before the crop should normally set buds, each plant will throw buds—at tips, leaf axils, etc. Sometimes cuttings will throw buds a week or two after benching. Some varieties are worse than others.

The cure: To prevent premature budding, you must:

- 1. Provide additional light up to May 1: 4 hours per night thru February, 3 hours per night thru March, 2 hours thru April. Use 60 Watt bulbs 4 feet apart, 3 feet above plants.
- 2. Keep night temperature 50° or below as long as possible.
 - 3. Keep growth soft—plenty of water, moderate feeding.
- 4. Avoid varieties susceptible to early budding. Examples: Blazing Gold, Legal Tender, Masterpiece, Silver Sheen, Constellation, Seneca and hardy varieties generally.

Naturally, the earlier you take delivery of your cuttings, the more apt you are to have early budding troubles.

BENCHING THE CUTTINGS

First, whenever at all possible, plant rooted cuttings directly to the bench where they are to flower. More often than not Mums in small pots are checked, hardened and delayed.

If unavoidable, cuttings can be held in $2\frac{1}{2}$ in. plant bands for 3-4 weeks. Keep well watered. If, after 30 days, you still aren't ready to bench, plant band and all out doors. Again, lots of water. We have held late Pomps, Revelation and Cameo, outdoors in bands till August 26, gotten a good crop from them.

Don't plant cuttings (or banded plants) too deep. A cutting should be set just deep enough in the soil to bury the roots. A deep planted cutting will be a slow growing plant.

Benching dates: For outdoor shaded Pomps to flower late September: bench May 15. For Thanksgiving Mums and Pomps, bench July 5. Later varieties proportionately later. A good rule: Bench 3-4 weeks in advance of pinching dates given in this catalog.

WHAT'S A GOOD MUM SOIL?

In our experience old greenhouse soil properly manured and steamed is better than fresh soil not sterilized. Somehow the old soil seems to have nutrients more available. Then, too, the sterilizing greatly improves it's structure. Mums like it.

Starting with the old soil, we add 1 wheelbarrow of rotted cattle manure per 100 sq. ft. We then steam to 180° for 30 minutes (See "Grower Talks", November 1947). After this, we add 4 lbs. 20% superphosphate per 100 square feet, rototill it in, then bench cuttings.

Fresh outdoor soil may be used. Add manure and phosphate as above. We prefer to sterilize even fresh soil—you eliminate weeds, soil insects—and diseases, many of which are found in our field soils.

In selecting soil from outdoors, note what kind of a crop it produced the past season. Soil that grows good corn will likely grow good Mums.

In re-using old greenhouse soils, you must be alert for excesses of soluble salts. These may accumulate from heavy fertilizing of the previous crop. Also a very hard water will add great quantities of calcium, sulfates, etc. If in doubt, send a teacupful in to us for soluble salts test. Symptoms of excess soluble salts: general restriction of growth, even burning of roots.

Lastly, we like to have fertilizer levels, nitrates and potash especially, low at benching time. Build them up later. Soil tests are the best guide.

CORRECT SPACINGS

FOR POMPS we prefer 7 x 8 inches trimmed to the best three shoots per plant. Heavy late sorts on the ground may need more room. Example: Revelation.

FOR MUMS 8 x 8 inches with two flowers per plant is a good spacing. Standards may be grown from one to four blooms per plant. Many retailers can use the somewhat smaller blooms grown three per plant. Some varieties won't stand it. What can you sell?

SINGLE STEM CULTURE. By spacing both Mums and Pomps 6 x 6 and growing one shoot per plant, it is possible to save 3-4 weeks time in the bench. This may permit working in an extra crop each year—otherwise not possible. For example: Good 4 to 5 inch Good News Mums can be flowered on 36 inch stems by September 5 from a June 2 benching. Space 6 x 6, no pinch, shade June 30. Likewise, the new white Pomp, Encore, can be flowered September 20 if benched June 24, shaded July 24. Space 6 x 6, no pinch. Growers producing three crops of Mums a year are forced to single stem culture because of the time it saves. For details see page 19.

CARE OF THE CROP

1. WATERING. Lots of Mum crops are checked and hardened by lack of water. You're not likely to overdo it. Most errors are on the dry side. Stanley Hall of Illinois says wad up soil in your fist, then drop the ball. If it crumbles, it's ready to water. If it wouldn't even make a ball, it's already much too dry! Always watch ends and edges of benches. Give them an extra lick between regular waterings.

Look into sub-irrigation—and surface watering with the new 360 degree nozzles. See your floriculture school for details. They save a lot of high priced labor.

2. FEEDING. In addition to the manure and phosphate at benching time, most Mums will need two or three applications of some balanced fertilizer such as Vigoro. Usually 2 lbs. per 100 square feet after plants get into active growth, then 2 lbs. again just before blooming, are adequate. It depends, though, on amount of fertilizer in soil at benching time. Also a heavy active growth on a raised, shallow bench will take much more feeding than a ground bed. Sandy soils need more frequent feeding. Soil tests are valuable. Maintain medium levels of nitrates, potash and phosphates. We use Spurway tests.

Best "p.H" or soil reaction for Mums in our experience is about neutral. Between 6.5 and 7.3 seems OK. Just avoid extremes.

- 3. SHADE. Mums most anywhere benefit by light protection from the sun. Under glass keep a light shade. Outdoors, use cheesecloth. Remove shade in fall.
- 4. "WETTING DOWN", a queer old-fashioned term, but I recall in my grade school days enjoying the way Mums

"perked up" when they were just sprayed overhead enough to wet the foliage and the walks. Once on a warm afternoon, twice if hot. Better not, tho, if you're having trouble with foliar nematode or leaf spot.

5. TEMPERATURES. In summer just keep vents wide open except during storms. They should be open at night, too, by the way!

In firing season, 50° nights is standard, with 58° on cloudy and 65° on sunny days. To avoid blindness on later varieties, keep 60° minimum until buds are in sight. Watch Garza, especially.

For off season flowering of Mums 60° nights is necessary. See page 19.

- 6. SPRAY PROGRAM. A must, weekly. See later pages on insects for details.
- 7. MULCHES somehow seem to do wonders for the Chrysanthemums. We mulch with a one inch layer of peat soon as plants are established. It reduces frequency of watering and feeding, and somehow they just grow better.

PINCHING AND SELECTING BUD

"Time" pinching is best. It simply means to pinch each variety on the date prescribed in this catalog. For example, Gold Lode, to be flowered at normal date is pinched July 8 (see page 4). Too early pinching sets the center flower in the spray of Pomps too low; too late has the opposite effect. On standard Mums, correct time pinching will usually eliminate formation of the crown bud. For correct pinching date in shaded and lighted Mums, write for our Crop Schedule—gratis.

> Sometimes, due to late benching, etc., you will get off this schedule. In general, if you are going to pinch, you should do so before the plant gets 10 to 12 inches tall. Don't pinch before the tip has grown at least 3-4 inches. Don't pinch into hard wood.

> Now, as to selecting the proper bud on the large "disbud" types. Mums send out two kinds of "buds" or growing tips:

- 1. CROWN. A flowering bud surrounded by non-flowering vegetative shoots.
- 2. TERMINAL. A flowering bud surrounded by flowering buds.



Top lett: The inverted "U" shaped bent pipe frames that support the black shading cloth. Four or five wires (No. 15) are strung lengthwise of the beds over these pipe frames to help support the sateen between the pipe frame members. Top right: The same pipe frame members used over raised benches. Only difference, instead of setting them into the ground, they are fastened to the bench side boards. A 12 inch piece of 1 inch angle iron is inverted on top of the side board; end of the pipe member is welded to the center of the angle iron. See page 8 for another view of this idea.

Bottom: A new wrinkle on supporting the wire and asset the supporting the wire and asset the same and asset the supporting the wire and asset the same asset the same and asset the same asset the s Top left: The inverted "U" shaped bent pipe frames that support the black shading

another view of this idea. Bottom: A new wrinkle on supporting the wire and cross strings. The men are holding a piece of V_4 inch concrete reenforcing rod bent to a "U." Holes are drilled in the bench side board and ends of the rods stuck into the holes. A piece of No. 9 wire serves as cross piece. A large 2 inch washer is welded to each end of the No. 9 wire; the concrete rod is stuck down thru the washer hole at each end of the No. 9 wire. The No. 9 cross wire is cut an inch or so too short. In this way it pulls inward against the V_4 inch concrete rod—so can't slip down.

One layer of supports serves for both Mums and Pomps. Thanks to this wire and rod arrengement they can be slid up easly each week to keep up with the plants. (Photos at Yoders, Ashtabula, Ohio).





Silver Sheen grown outdoors at West Chicago. Flexo-glass sash protection during the actual flowering season is needed to prevent rotting of blooms.

Early Mums will usually throw a crown bud in August. This is usually removed and one of the vegetative side shoots "selected" or left to grow on. All other shoots are removed. Some plants may produce another crown which may again be discarded in favor of a non-flowering shoot. Sooner or later, all plants produce a terminal from which you must select the best bud—to produce the flower.

On early varieties it's safest to remove all crowns up to August 20. Early crowns are OK on some shaded Mums. On mid-season sorts, terminals are safer. Final bud should have been selected by September 1-10; on late ones a month later. Your experience is the best guide. Keep notes.

By the way, on all large standard Mums, you must remove all the lower side growths. All the effort of the stem must go into the one bud. Some growers even practice removal of side shoots from certain Pompon varieties. Little America, for example, flowers much better if side shoots are removed and the spray is allowed to flower only 8-10 florets.

Don't cut a Mum till it's fully open. It will wilt in several hours if cut green. Spider Mums can be cut green and opened in water.

BLACK CLOTH SHADING

Mums, being short day plants, can be very nicely brought into bloom about a month ahead of normal date by covering them with black cloth from 5 P.M. to 7 A.M. in late summer. This actually simulates the shorter days of fall. Some pointers:

HOW TO SHADE. Simplest way is to just stretch wires over the bench—lengthwise, forming a support on which the black sateen can be draped. During the day it is simply bunched up. Be sure the wires are high enough so the flowers won't hit the cloth before you're thru shading. 6 ft. or more may be needed. See photos for other ideas on shading. Some growers rig up side curtains like a shower curtain and cover the top with a strip of cloth rolled around a stick.

On rainy nights or during very hot weather, it will help in disease prevention to remove the cloth after dark and replace it again before daylight. Watch this closely if you are having disease troubles. Be sure the covering is lighttight. Black sateen, 64 x 104 mesh is best. For best results, shade every night; missing one or two nights over the season won't be serious, but much more will simply delay flowering.

Continue shading until buds on Pomps show color. Buds on Standards should be the size of a nickel before shading is stopped.

Here's our schedule on shaded Mums and Pomps for early fall:

TO FLOWER AUGUST 20-25

Plant rooted cuttings May 19 (6 x 6, no pinch).

Start shading: June 18.

Varieties: Gold Coast, Pinocchio, Shasta, Yellow Shasta, Carolyn Yosick, Rubicon.

TO FLOWER SEPTEMBER 15-20

Plant rooted cuttings May 15 (8 x 8).

Pinch: June 14.

Start shading: July 10.

Varieties: Gold Coast, Pinocchio, Shasta, Yellow Shasta, Carolyn Yosick, Rubicon, Seneca. Also following Mums if grown indoors or under sash: Good News, Detroit News, Betsy Ross, Jean Elizabeth, Mefo, Silver Sheen.

These schedules may be varied. For complete schedule write for our free *Mum Crop Schedule*.

OUTDOOR MUMS

Each season finds more Pomps, especially, flowered out-doors in early fall—in both western and eastern producing areas. Big advantage is low cost compared to greenhouse growing. Also it's cooler outdoors. Benching schedules under "Black Cloth Shading", above, apply. You must watch frost dates, but we find Pomps will stand several degrees of frost if the sateen is lowered on cold nights.

Also to produce real quality it is essential that some protection against sun and wind be provided. Regular Aster cloth (8 threads per inch) or onion cloth is OK. The new plastic cloths about 20 threads per inch are excellent—cost more, but last at least several years. Use the transparent shade, not the dark brown or black.

To flower big Mums outdoors in the East, some protection is needed, especially during the actual flowering season. We



have had good success with our so-called "Flexo-glass" houses. We build up a framework same shape as a greenhouse, using 1 or 11/4 inch pipe. Our houses are 24 ft. wide, 6 ft. gutters, and standard roof pitch. We like to provide cheesecloth over the plants during summer. Then, as color starts to show, we fit large sash of one of the many inexpensive glass substitutes over the house. By adding several lines of steam pipe, we are able to keep in production till well along in October. That permits use of some of the fine November flowering varieties. Quality generally is good with very little rotting of flowers.

Such houses may be shaded right over the roof by means of a rope and pulley arrangement.

AS POT PLANTS

Well grown, Mums make a handsome fast selling fall pot plant. Essentials of culture:

- 1. PLANTING. The modern method is to plant 3 or 4 rooted cuttings to a standard 6 inch pot. The good midseason sorts are planted in early June; sooner, of course, for earlier ones or if they are to be shaded. You may first pot the cutting to 21/4 inch pots; this enables you to sort out the weaker ones before final potting. Be sure the soil is high in organic matter, either from well rotted manure or peat; it helps a lot both in watering and feeding.
- 2. RINCHING. While many growers only pinch pot Mums twice, three pinches seem to produce best shaped plants in the end. Records of your own previous crops plus common sense are the biggest help. For detailed final pinching dates on pot Mums write for our gratis Crop Schedule. Also, it gives complete schedules for black cloth shading of pot Mums.
- 3. CARE OF THE CROP. Moving pot Mums outdoors over the summer is a big boost to them, especially if cheesecloth shade is provided. The open air seems to produce a more vigorous husky growth. Also, pot Mums will require a good bit of feeding, best based on soil tests. Normally starting with fresh field soil, a teaspoonful of Vigoro or equivalent several times during the summer and fall will be needed. Ammonium sulfate may be used instead early in the summer.

To finish nice clean plants, they should be brought under glass again by Labor Day.

- 4. VARIETIES. Nearly all large standards or disbuds and anemones. They make a much showier plant than the button types. Current favorites: Blazing Gold, Marketeer, Sun Gold, and Yellow Beauty. Our Granite State is an exceptionally fine pot strain, being quite dwarf. Also, its foliage stays up close to the bloom—no long neck. In general, avoid tall growers.
- 5. SOMETHING DIFFERENT. One grower last spring potted off a few hardy or garden Mums. Three cuttings were potted to a five in February. Four to five weeks after potting they were black cloth shaded. By mid-May they were in full flower and handsome looking plants.

There was double sales appeal. The Lady, after enjoying it as a house plant, just planted it out in the yard—and enjoyed a second show in the fall!

Good Varieties: Chiquita, Avalanche, Early Bronze, Jewell varieties—and any dwarf early sorts.

YEAR 'ROUND MUMS

Can you use good white or yellow Pomps for Easter, Mother's Day-or June weddings? Many thousands of bunches of Pomps hit the markets all thru last winter, spring, and early summer. They sold, and at good prices. Retailers found them more durable, especially for funeral work than other spring flowers.

It's quite practical to flower them any month of the year, or you can set up a "3 crops a year" house—as several specialists are now doing. Here are dates for a Mother's Day, Easter, and June crop, 1950:

TO HIT EASTER 1950, bench cuttings 6 x 6 November 10. No pinch. Lights from benching till January 12. Lights on 4 hours per night thru November, 5 hours December 1 to 21, 11/2 hours December 21 to January 12. Black cloth shade March 1 till buds show color. 60° minimum essential.

Varieties: Little America, Shasta, White Mensa, Sunray, Masterpiece, Yellow Shasta, Golden Mensa, Bronze Masterpiece. Disbuds: Mefo, Orchid Queen, Yellow Mefo, Yellow Queen, Jean Elizabeth, Indianapolis varieties OK.

FOR MOTHER'S DAY 1950, bench cuttings 6 x 6 December 28. No pinch. Lights from benching till February 14. Hours: 5 hours per night December 28 to January 22; 1½ hours per night January 22 to February 14. Black cloth shade February 14 till buds show color. Shade 5 P.M. to 7 A.M. 60° minimum.

Varieties: Gold Coast, October Pink, Golden Herald, Pinocchio, Arcadia.

FOR JUNE 13 CROP, bench cuttings 6 x 6 (no pinch), February 27. Light as follows: February 27 to March 16, 3 hours per night; March 16 to April 8, 1 hour per night. Black cloth shade April 8 till buds show color. 60° minimum temperature.

Varieties: Gold Coast, Golden Herald, Starbright, Yellow Shasta, Pinocchio, Shasta, Ballerina, Linda Lou, Masterpiece, October Pink. Also following Standards: Good News, Yellow Mefo, Yellow Queen, Albatross, Betsy Ross, Jean Elizabeth, Mefo, Silver Sheen.

A 90 DAY "QUICKIE" FOR SEPTEMBER 5 FLOWERING. No temperature problem. Standards (disbuds) do well. Fits between spring crops and early Snaps. No lights. Bench cuttings June 1st, 6 x 6. No pinch (both Mums and Pomps). No lights. Black cloth shade July 1st till Pomps show color; Mum buds size of nickel.

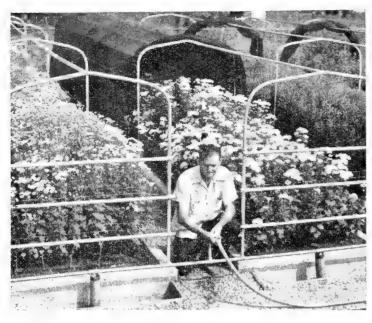
Varieties: Barcarole, Yellow Shasta, Carolyn Yosick, Yellow Daisy, White Shasta, October Pink, Rusticon.

Large Disbuds: Good News, Albatross, Jean Elizabeth, Yellow Queen, Betsy Ross, Silver Sheen.

Wire and string supports OK.

WARNING. A minimum temperature of 60° must be provided for Mums to insure against blindness. If you aren't





Another good way to support black cloth for shading. The pipe frame also supports the wire and cross strings. That's Walter Ginter, New Haven, Conn.

able to provide a 60° house, better let it alone. Also cuttings used for off-season crops must be from lighted stock plants. We have such cuttings available of most varieties if order is placed well in advance. Where lights are indicated, use 60 Watt bulbs 4 ft. apart, with reflectors.

For complete schedule on year 'round flowering of both Mums and Pomps, write for our *Mum Crop Schedule*. Also, the September 1949 issue of our 'Grower Talks' contains more details, especially on single stem growing schedules.

INSECT CONTROL

A most important part of growing better Mums. The big trick here is always to anticipate trouble, or failing that, get really busy at the first sign of infestation.

A GOOD PREVENTIVE PROGRAM: Weekly spraying with Vapotone 1 to 800, plus Santomerse 1 to 1000, plus Fermate 1 pound per 100 gallons will control most insects and the main foliage diseases.

1. MIDGE. We found the following a very effective control: Apply sodium selenate to soil at recommended rate (1/4 gram per square foot if concentrated powder is used). We put this on with a hozon siphon applicator. Wash foliage with water after application to avoid burn. This gave slight injury on one bench where Stock plants were not yet well established; not serious.

Besides that, we dusted weekly with DDT dust—for nearly two months. No new galls were seen after 30 days.

- 2. RED SPIDER. Troublesome, especially in warm weather. Daily "wetting down" of foliage helps. We depend largely on Parathion bombs for control of spider, aphis, and most other Mum insects. Vapotone spray 1 to 800 is excellent—use a good spreader.
- 3. THRIP. Detex or any good DDT spray is very effective.

- 4. APHIS. Parathion bomb (or spray) very good. Vapotone spray 1 to 800 with spreader is also excellent.
- 5. LEAF MINER. Nicotine liquid used 1 to 200 with soap spreader is the best control.
- 6. MEALY BUG. The new Dimite spray used 1 to 800 with a good spreader is very effective. Vapotone 1 to 800 with a spreader is good.
- 7. LEAF ROLLER (tier), and cut worms. Detex or any good DDT spray.
- 8. FOLIAR NEMATODE. Select cuttings from clean plants and bench only in sterilized soil. Also, if infestation occurs, keep foliage dry at all times. Splashing water spreads the worms. Some infestation may be cleaned up with sodium selenate. Apply at strength recommended on container 2 weeks after planting. Then repeat in another 2 weeks. May injure some varieties.
 - 9. GRASSHOPPERS. Chlorodine powders are best.

PRINCIPAL DISEASES

1. STUNT. Principal symptoms are dwarfing of plant and blooms to about $\frac{1}{2}$ to $\frac{2}{3}$ normal size, earlier bud and bloom formation, and on red varieties a notably paler color. Otherwise plants are normal. Stunt does not cause any shriveling of leaves or rotting of the plant.

Control: First start with cuttings nearly free as possible of the disease. Thorough steaming of soil to 180° for 30 minutes is vital to prevent re-infection from the soil. Rigid insect control is equally important in view of possible spread of the disease from healthy to clean plants. Like most diseases it attacks certain varieties worse than others. Once a plant is infected, there is no cure.

- 2. VERTICILLIUM (Seidewitz Disease) is a serious Mum problem. Starting at edges, leaves turn yellow, dry up—usually from the bottom of the plant first. Some varieties take it worse than others. Only known control is to plant cuttings which have been cultured against it—and be sure to use sterilized soil. Steam preferred.
- 3. SEPTORIA. Small dark brown spots, increasing in size, finally causing leaves to drop. Attacks lower leaves first. Most serious on outdoor plantings. Delay propagating till long shoots are available; take only a short cutting out of the tip. Dip cuttings in Fermate, 1 lb. per 100 gallons of water. Keep foliage dry in sand and clear thru growing period. After planting, spray plants with Fermate 1 lb. per 100 gallons every 10 days till plants are 18 inches high. Spraying is especially important on outdoor plantings in rainy seasons.
- 4. MILDEW. Sulfur dust is effective if no colored flowers are present. Malachite green spray may be used. Greenol (California Spray and Chemical Co.) with Santomerse S, 1 to 2000, has been recommended recently as being very effective.
- 5. RUST. Same spray program as was recommended for Septoria leaf spot.



Carnation Cuttings for '49-'50 Season

The necessity of clean, healthy Carnation cuttings is fully as important to the grower as Mum cuttings that he can depend upon. Because we are cut flower growers ourselves, as well as dealers in Carnation cuttings, we realize how vital good stock is to our customers.

With this thought foremost in our minds we have spared no effort to obtain the very best possible sources of supply for our Carnation cuttings. However, we cannot stress too strongly the importance of ordering early if you want real quality.

If your stock is disease infested, or if you've been wanting to try several of those better new varieties, right now is the time to give us your order. We'll give it our very best attention.

Minimum order 100 of a variety. 250 cuttings of a variety at the 1000 rate. Prices subject to change. Cuttings available from December thru March. For varieties marked "patented" or "restricted", agreements must be signed before shipment can be made.

	_	Cuttings	_	Cuttings
WHITE	100	1000	SALMON PINK 100	1000
Colonel Blimp. Originated with Peter Beuer- lein's Sons	\$15.00	\$125.00 125.00	Charm (Patented). Stems long and sturdy\$20.00 Donna Lee. Flowers large and full	\$150.00 125.00 80.00
Northland. Large, fragrant white	12.00	100.00 80.00 80.00	Pollyanna (Patented). Steady winter producer 15.00 Salmon Virginia. Salmon sport of Virginia 10.00	125.00 80.00
Shangri La. A pure white	15.00	125.00	CRIMSON and RED	
freer flowering White Peter Fisher. Well known white White Sim	15.00	125.00 80.00 Out	C. W. Weld. Clean healthy grower, good stem 12.00 Jumbo Cardinal (Restricted). Imp. Cardinal 15.00 No. 14 Crimson (Restricted)	100.00 125.00 125.00 100.00
LIGHT PINK			Red Champion (Restricted). Cardinal color 20.00 Red Seth Parker. Sport of Seth Parker 12.00	150.00 100.00
Light Pink Abundance (Patented)	20.00	90.00 150.00 150.00 80.00	Seth Parker (Patented). Rich, bright crimson 20.00 Tom Knipe (Patented). Large full flower 20.00 Victory Red. Imp. King Cardinal, deeper red 20.00 Wm. Sims (Restricted). Vivid red seedling 20.00	150.00 150.00 150.00 150.00
Spirit of St. Louis (Restricted). Early, long stemmed		150.00	YELLOW	
Virginia. Standard light pink	15.00	80.00 125.00 125.00	Miller's Yellow. Best yellow 12.00	100.00
			ORCHID	
Citation (Restricted). Rose pink, silver edge Lucille (Restricted). Large flowered	20.00	150.00 150.00	Mrs. Bradford (Restricted). Clear orchid.20.00Nancy. Dark orchid, lighter edge.20.00Orchid Beauty.12.00	150.00 150.00 100.00
Pink Mercury Pink Treasure (Patented). Large, full flowers Rosalie (Patented). Flowers medium to large	15.00	150.00 125.00	MISCELLANEOUS	
Good keeper	20.00	150.00 80.00	Barbara Brigham.Apricot, pink pencilings10.00Chief Kokomo(Patented).Pink on yellow12.00Coronet.Yellow, red stripes	90.00 100.00 125.00 100.00 80.00
Canup's Pride (Restricted). Good stem, free flowering Chalfont (Restricted). Int. by Peter Hollberg Dark Pink Patrician. Flowers large and full John Briry. Bright, dark pink	20.00 20.00 10.00 10.00 20.00 20.00 12.00	150.00 150.00 90.00 80.00 150.00 150.00	Golden Wonder. Yellow variegated	80.00 125.00 150.00 150.00 125.00 150.00 150.00 150.00



Ball's Quality

AMERICAN GROWN

Offered Subject to Prior Sale



Quality Crofts like these come only from clean, inspected bulbs—and that's the only kind we handle.

BALL CROFTS FOR CUTTING

Besides being the best pot Lily for Easter, the Croft is unexcelled for cutting—it's an extremely prolific bloomer. Grown outdoors here in northern Illinois, we've found it perfectly winter hardy, too, with sturdy, heavy stems and durable flowers that resist windy, rough weather to a remarkable degree. You'll find them mighty handy for summer funerals and weddings grown this way.

Plant Croft Lilies for cutting from December 1 to May 15. Larger sized bulbs should be used for later planting. Write for a planting schedule giving planting and approximate flowering dates.

We will hold bulbs in cold storage until you wish to plant.

All Lily Bulbs are F.O.B. Cold Storage.

Size	Bulbs per Case	Price per Case
6-8 in	300	WRITE
7-8 in	250	PRICES

Available in case lots only. F.O.B. Cold Storage.

ESTATES

Trumpet, pure white.

One of the best Lilies for cutting.

F.O.B. Chicago

REGALES

Trumpet, white inside, reverse pale pink.

F.O.B. Chicago

Size	Bulbs per Case	Price per Case	Size	Bulbs per Case	Price per Case
7-8 in	250	WRITE	7-8 in	250	. WDITE
8-9 in	200	FOR	8-9 in	200	WKITE
9-10 in	150	POK	9-10 in	150°	FOR
10-up	100	PRICES	10 up	100	PRICES

Available in case lots only.





JAPANESE GROWN

Offered Subject to Prior Sale

SPECIOSUM RUBRUM

SPECIOSUM ALBUM

Reflex, carmine pink.

Reflex, white.

Size B	ulbs Per Case	Price Per 100	Price Per Case	Size	Bulbs Per Case	Price Per 100	Price Per Case
7-9 in	250]		7-8 in.	300	,	
8-9 in	200	. WR	ITE FOR	0.0:	200	WR	TE FOR
9-10 in	150	. Р	RICES	8-9 in.	200	Р	RICES
10-11 in	100]		9-10 in	150		

AURATUM (Gold Band)

PLATYPHYLLUM (Auratum)

White, spotted crimson, yellow stripe.

Less spotted than Gold Band.

Size	Bulbs Per Case	Price Price Per 100 Per Case		Bulbs Per Case	Price Per 100	Price Per Case
8-9 in	200	WRITE FOR	8-9	in 200	·· WR	TE FOR
9-10 in.	150	PRICES	9-10) in 150] Р	RICES

F.O.B. West Chicago

BALL HARDY LILY COLLECTION

F.O.B. West Chicago

An ideal unit for growers who want only a small number of Lilies in several varieties.

Every unit contains cultural information for both greenhouse and outdoor growing of each variety. Pictures of each variety are also included to help you sell bulbs.

Each Collection Contains the Following:

	Type	Color
35 Bulbs Croft	Trumpet	Pure white
35 Bulbs Regale	Trumpet	White with pale pink
35 Bulbs Rubrum	Reflex	Carmine pink
35 Bulbs Auratum	Bowl	White spotted crimson, yellow stripe.
35 Bulbs Album	Reflex	White Rubrum

1 Case of 175 Bulbs (Above Collection)

Price \$55.00





Spring Delivery for Growing On

All prices per 100 plants

Orders accepted in units of 25 per variety.

NOVELTIES	Rooted				Rooted Cuttings	21/4 In.	3 In.
Variety		21/ ₄ In.	3 In.	Hamburg. E. Carmine\$	12.00	\$18.00	\$25.00
Bobby Merritt. M. Coral Bell Pink	\$16.00	\$25.00	\$30.00	Merveille. L. Light red	12.00	18.00	25.00
Jean Merritt. M. Dark pink	16.00	25.00	30.00	Regula. E. White	12.00	18.00	25.00
Caprice. M. Excellent white	16.00	25.00	30.00	Rosabelle. L. Rose pink	12.00	18.00	25.00
Engel's White. M. Strong grower	16.00	25.00	30.00				
Merritt's Beauty. E. Dark carmine red	16.00	25.00	30.00	STANDARD VARI	ETIES		
*Strafford. M. Dark Pink	16.00	25.00	30.00	*Gertrude Glahn, M. Dark rose	6.00	10.00	18.00
				*Goliath. M. Dark rose	6.00	10.00	18.00
RECENT INTRODU	CTION	12		*Louis Savage. L. Dark pink	6.00	10.00	18.00
Altona. E. Clear pink	12.00	18.00	25.00	*Niedersachsen. E. Light pink	6.00	10.00	18.00
*Europa. E. Salmon pink	12.00	18.00	25.00	Symbols: *Blues easily; E, early; M, mid	d-seaso	n; L. lat	e.

Grow Better Mums and Carnations with Ball Better Plant Bands

Here are the Popular Sizes of BALL BETTER BANDS

For Carnations and Mums

		Р	acke	d in U	Inits of	2000	Each.	
2	× 2	x 2 1/2	per	1000				 4.70
21	$\sqrt{2} \times 2^{1/2}$	x 2 ½	per	1000				 5.10
21	$^{'}_{2} \times 2^{1}_{2}$	× 3	per	1000				 5.30

For Retail Selling of HARDY MUMS we recommend

		Packed in Units of 1000 Each.	
$3 \times 3 \times 3$	per 10	000\$	5.75
$3 \times 3 \times 4$	per 10	000	6.70
$4 \times 4 \times 4$	per 10	000	7.75

For Nurserymen's use we have the JUMBO SIZES

	Packed in Units of 250.	
4 x 4 x 6 p	er 1000 \$15	.80
бхбхб р	er 1000 21	.00
	er 1000 28	

We also carry bottoms for these larger sizes. Liberal discount for the larger, early orders. Write us about this, also for samples any sizes.

We also carry full line of Bird Products: Vita Bands 10 and 40, all sizes; Red and new Vita-Pots—all at standard prices.

IMMEDIATE DELIVERY on all above Ball Better Bands, as well as Bird Vita-Bands and pots.

Be sure to state how to ship.

Young Carnations and Mums are ideally handled either by placing the bands directly in the bench or in flats (inset). The flat method has the advantage of one less handling when moving is necessary, and in enabling the grower to use vacant shelf space. The $2\frac{1}{2}$ x $2\frac{1}{2}$ in. band is the popular size with Carnation and Mum growers.





____Betsv Ross

____Bittersweet

____Bonton

____Bourbon

____Bristolite

____Br. Brocade

____Br. Bulkeley

----Br. Dot

____Br. Frick

----Br. Goldsmith

----Br. Minuet

____Br. Mistletoe

____Br. Masterpiece

____Br. Buckingham

____Br. Calif. Daisy

____Brocade

____Blazing Gold

____Bonnaffon DeLuxe

Rooted Mum Cuttings-1950

Lerve go	I N C. WEST CHICAGO		GREENH	OUSE VARIETIES		Rec'd
0	ILLINOIS	Date		Terms		Ck.
FIRM NAME						M.O.
						Chg.
STREET OR R. F. D	•					Remittance Enclosed
CITY AND STATE						
	☐ Substitute. Substitute. Substitute. Substitute. Substitute.	order beir	k one) YesNo ng shipped on the date	you specify, we sugge	est that you order at	
-			CHANGES ON YOU ety or multiples of 50.			DAYS OF DELIVERY
Quan. Variety	2500 500- 100- up 2450 450 per per per 100 100 100	per Amt.	Quan. Variety	2500 500-100- up 2450 450 50 per per per per Amt. 100 100 100 50	Quan. Variety	2500 500- 100- up 2450 450 50 per per per per Amt. 100 100 100 50
Adelaide	4.00 4.50 5.00	2.75	Cavalcade	5.00 5.50 6.00 3.25	Garza	3.85 4.40 4.95 2.75
Albatross	3.85 4.40 4.95	2.75	Celestra	3.50 4.00 4.50 2.50	Gladys Pearson	3.50 4.00 4.50 2.50
Ambassador			Champagne	7.00 8.00 9.60 5.00	Gold Coast	4.20 4.80 5.40 3.00
Anaconda	4.20 4.80 5.40	3.00	Chattanooga	3.85 4.40 4.95 2.75	Gold Lode	3.50 4.00 4.50 2.50
Apricot Valencia			Chicago Pearl	3.50 4.00 4.50 2.50	Gold, Anniversary	5.60 6.40 7.20 4.00
Arcadia			Christmas Cheer	4.00 4.50 2.50		7.00 8.00 9.00 5.00
Ball Engle			Christmas Star	5.60 6.40 7.20 4.00		7.00 8.00 9.00 5.00
Ballerina			Cinderella	7.00 8.00 9.00 5.00		3.85 4.40 4.95 2.75
Barcarole			Constellation	4.90 5.60 6.30 3.50		3.85 4.40 4.95 2.75
Beautiful Lady	3.50 4.00 4.50	2.50	Cordova	3.85 4.40 4.95 2.75	Golden Mensa	3.85 4.40 4.95 2.75

4.00 4.50 5.00 2.75_____Golden Mistletoe

7.00 8.00 9.00 5.00_____Golden Pearson

4.20 4.80 5.40 3.00_____Golden Surprise

3.50 4.00 4.50 2.50_____Goldsmith

3.50 4.00 4.50 2.50_____Grenadier

4.20 4.80 5.40 3.00 _____ Harmony

3.85 4.40 4.95 2.75_____Gypsy

3.85 4.40 4.95 2.75_____

3.50 4.00 4.50 2.50 _____

3.50 4.00 4.50 2.50_____Good News

4.90 5.60 6.30 3.50_____ Governor Lake

5.00 6.00 7.00 4.00 _____Granite State

3.85 4.40 4.95 2.75_____Hasegawa Pink

4.50 5.00 2.75_____*Illini Bountiful

____Illini Gold

7.00 8.00 9.00 5.00 ------Helen Frick

4.50 5.00 5.50 3.00_____*Illini Brave

4.20 4.80 5.40 3.00_____Holiday

6.50 7.00 7.50 4.00______Golden Mrs. Ross

3.85 1.40 4.95 2.75_____Cotton Top

3.85 4.40 4.95 2.75_____Cream Dot

6.50 7.00 7.50 4.00_____

5.50 6.00 6.50 3.50_____

5.00 5.50 3.00_____

4.00 4.50 2.50_____

4.00 4.50 5.00 2.75_____

4.20 4.80 5.40 3.00 _____ Crystal Beauty

3.15 3.60 4.05 2.25_____ Dk. Pk. Bulkeley

7.00 8.00 9.00 5.00______Dr. Pk. Norma

7.00 8.00 9.00 5.00______Dk. Pink Supreme

4.00 4.50 5.00 2.75_____ Dk. Pk. Valencia

4.20 4.80 5.40 3.00_____|__Debonair

3.50 4.00 4.50 2.50_____ ___Dec. Gold

5.60 6.40 7.20 4.00_______Ecstasy

3.85 4.40 4.95 2.75_____Detroit News

3.50 4.00 4.50 2.50 _____ Dr. Enguehardt

3.50 4.00 4.50 2.50______Ed. Seidewitz

----Dr. Pk. Jewell

_____Dk. Pk. Riviera

-----Dec. Glory

____Defiance

-----Dk. Pk. Orch. Queen

3.50 4.00 4.50 2.50____

3.50 4.00 4.50 2.50____

3.50 4.00 4.50 2.50 _____

3.85 4.40 4.95 2.75_____

4.00 4.50 2.50____

4.50 5.00 2.75_____

4.50 5.00 2.75____

4.20 4.80 5.40 3.00_____

3.50 4.00 4.50 2.50

4.90 .5.60 6.30 3.50_____

3.50 4.00 4.50 2.50 _____

3.85 4.40 4.95 2.75_____

7.00 8.00 9.00 5.00_____

7.00 8.00 9.00 5.00_____

4.00 4.50 2.50____

7.00 8.00 9.00 5.00____

4.20 4.80 5.40 3.00_____

4.00 4.50 2.50_____

Quan. Variety	2500 500-100- up 2459 450 50 per per per per per 100 100 100 50	Quan. Variety	2500 500- 100- up 2450 450 50 per per per per Amt. 100 100 100 50	Quan. Variety	2500 500-100- up 2450 450 50 per per per per Amt. 100 100 100 50
Irono	3.50 4.00 4.50 2.50	Pinocchio	4.20 4.80 5.40 3.00	Thanks. Pink	3.85 4.40 4.95 2.75
Irene Ishida	5.50 6.00 6.50 3.50		3.50 4.00 4.50 2.50		3.50 4.00 4.50 2.50
Jean Elizabeth	4.55 5.20 5.85 3.25		7.00 8.00 9.00 5.00		3.85 4.40 4.95 2.75
Jemima	4.00 4.50 5.00 2.75		4.20 4.80 5.40 3.00		4.55 5.20 5.85 3.25
	3.50 4.00 4.50 2.50		3.85 4.40 4.95 2.75		3.50 4.00 4.50 2.50
Jessie	3.50 4.00 4.50 2.50		7.00 8.00 9.00 5.00		3.85 4.40 4.95 2.75
Jewell	3.85 4.40 4.95 2.75		6.00 7.00 8.00 4.50		3.50 4.00 4.50 2.50
		Queen of Pinks	3.85 4.40 4.95 2.75		3.85 4.40 4.95 2.75
Kay Tashima	3.50 4.00 4.50 2.50		7.00 8.00 9.00 5.00		3.50 4.00 4.50 2.50
Lillian Date	3.50 4.00 4.50 2.50		4.50 5.00 5.50 3.00		4.00 4.50 5.00 2.75
Lillian Doty	3.85 4.40 4.95 2.75			W. H. Buckingham	
Linda Lou	3.15 3.60 4.05 2.25		6.50 7.00 7.50 4.00		4.50 5.00 2.75
Little America	3.50 4.00 4.50 2.50		4.20 4.80 5.40 3.00		3.50 4.00 4.50 2.50
L. I. Beauty	4.00 4.50 5.00 2.75		3.50 4.00 4.50 2.50		3.50 4.00 4.50 2.50
Major Bowes			4.90 5.60 6.30 3.50		4.00 4.50 5.00 2.75
Mamoru	6.00 6.50 3.50 3.85 4.40 4.95 2.75		6.00 6.50 3.50		3.85 4.40 4.95 2.75
Margaret Moeller		· ·	7.00 8.00 9.00 5.00		3.50 4.00 4.50 2.50
Marie DePetris	3.85 4.40 4.95 2.75		3.15 3.60 4.05 2.25		3.50 4.00 4.50 2.50
Marketeer	3.85 4.40 4.95 2.75				6.00 6.50 3.50
Mary L. Hall	3.50 4.00 4.50 2.50		4.20 4.80 5.40 3.00		3.50 4.00 4.50 2.50
Mary McArthur	5.60 6.40 7.20 4.00		3.50 4.00 4.50 2.50		
Masterpiece	3.50 4.00 4.50 2.50		3.85 4.40 4.95 2.75		5.50 6.00 6.50 3.50
Matchless	4.20 4.80 5.40 3.00		3.50 4.00 4.50 2.50		7.00 8.00 9.00 5.00
Mefo	4.20 4.80 5.40 3.00		3.15 3.60 4.05 2.25		4.50 5.00 2.75
Merrymaker	7.00 8.00 9.00 5.00		3.50 4.00 4.50 2-50		4.00 4.50 5.00 2.75
Meteore	4.90 5.60 6.30 3.50		7.00 8.00 9.00 5.00		3.85 4.40 4.95 2.75
Minong	3.85 4.40 4.95 2.75		4.20 4.80 5.40 3.00		3.50 4.00 4.50 2.50
Minstrel	5.60 6.40 7.20 4.00		7.00 8.00 9.00 5.00		5.00 5.50 3.00
Minuet	4.20 4.80 5.40 3.00		4.20 4.80 5.40 3.00		4.00 4.50 5.00 2.75
Miss Gene Harwood	6.00 6.50 3.50		3.50 4.00 4.50 2.50		4.20 4.80 5.40 3.00
Monument	3.50 4.00 4.50 2.50	Sea Gull	3.50 4.00 4.50 2.50	Yel, Cassandra	7.00 8.00 9.00 5.00
Moonglow	7.00 8.00 9.00 5.00	Seneca	4.90 5.60 6.30 3.50	Yel. Chattanooga	3.85 4.40 4.95 2.75
Mrs. Kidder	3.50 4.00 4.50 2.50	Shasta	3.85 4.40 4.95 2.75	Yel. Chief	4.50 5.00 2.75
Mrs. R. A. Walker	6.00 6.50 3.50	Silver Ball	3.50 4.00 4.50 2.50	Yel. Cordova	3.85 4.40 4.95 2.75
Mrs. Roy	4.20 4.80 5.40 3.00	Silver Sheen	3.85 4.40 4.95 2.75	Yel. Daisy	4.00 4.50 5.00 2.75
Navaho	4.20 4.80 5.40 3.00	Silversmith	7.00 8.00 9.00 5.00	Yel. Dot	3.50 4.00 4.50 2.50
Nevada	3.85 4.40 4.95 2.75	Smith's Late White	4.55 5.20 5.85 3.25	Yel. Fellow	3.85 4.40 4.95 2.75
Norma	3.50 4.00 4.50 2.50	Snow	3.50 4.00 4.50 2.50	Yel. Irene	3.50 4.00 4.50 2.50
Nov. Bronze	5.00 5.50 3.00	Snow Cap	7.00 8.00 9.00 5.00	Yel. L. I. Beauty	7.00 8.00 9.00 5.00
Nuggets	3.50 4.00 4.50 2.50	Snow White	4.00 4.50 5.00 2.75	Yel. Mefo.	4.20 4.80 5.40 3.00
Oak Leaf	3.50 4.00 4.50 2.50	Snowcrest	7.00 8.00 9.00 5.00	Yel. Monument	3.50 4.00 4.50 2.50
October Bronze	4.50 5.00 5.50 3.00	Soprano	7.00 8.00 9.00 5.00	Yel. Queen	4.90 5.60 6.30 3.50
October Pink	4.20 4.80 5.40 3.00	Starbright	7.00 8.00 9.00 5.00	Yel. Revelation	7.00 8.00 9.00 5.00
Omega	4.90 5.60 6.30 3.50	Sue Sally Jones	6.00 6.50 3.50	Yel. Riviera	7.00 8.00 9.00 5.00
Orchid Beauty	3.50 4.00 4.50 2.50	Sunburst	4.00 4.50 2.50	Yel. Rolinda	3.50 4.00 4.50 2.50
Orchid Queen	4.55 5.20 5.85 3.25	Sunglow	3.85 4.40 4.95 2.75	Yel. Shasta	7.00 8.00 9.00 5.00
Peggy Ann Hoover	6.00 6.50 3.50	Sun Gold	4.00 4.50 5.00 2.75	Yel. Snow	3.50 4.00 4.50 2.50
Pk. Calif. Daisy	4.00 4.50 2.50	Sunkist	4.50 5.00 5.50 3.00	Yel. Supreme	3.50 4.00 4.50 2.50
Pink Chief	3.85 4.40 4.95 2.75	Sunnyside	3.85 4.40 4.95 2.75	Yolanda	3.50 4.00 4.50 2.50
Pink Dot	3.50 4.00 4.50 2.50	Sunray	3.85 4.40 4.95 2.75	Yukon	3.50 4.00 4.50 2.50
Pk. L. I. Beauty	7.00 8.00 9.00 5.00	Susanne Miller	3.50 4.00 4.50 2.50	Yuleflame	5.60 6.40 7.20 4.00
Pk. Mistletoe	3.50 4.00 4.50 2.50	Sylvanna	3.50 4.00 4.50 2.50		
Pk. Treas. Island	3.50 4.00 4.50 2.50				

We, Geo. J.Ball, Inc. give no warranty, express or implied, as to the productiveness of any seeds, bulbs or plants we send out and we will not be in any way responsible for the crop. Our liability, in all instances, is limited to the purchase price of the seed, bulbs, or plants.

General Index

New Varieties for 1950				
Illing Varieties 2		PAGE		PAGE
Illing Varieties 2	New Varieties for 1950		Carnation Cuttings for '49-'5	0 Season
Price List Graden (Hardy) Varieties 13 Plant Bands				
Price List Garden (Hardy) Varieties 13 Plant Bands	Price List Greenhouse Variet	iec 4		
Page				
Page			Plant Bands	
Adelaice	Growing Better Mums			
Adelated				
Adelaise				
Adelaises				Page
Albatroos			Marketeer 5 Mary I. Hall 6	
Ambassador			Mary McArthur 9	Silversmith
Agroady Same Same	Ambassador 4	Firebird11		Smith's Late White 5
Second 1				Snow CapCover 2, 9
Ballerna				Snow Cloud 8
Balle Engle		6		
Ballerin 1, 9 Garnet King 5 Mass Gene Harwood 12 Saw Sally Jones		_	Minstrel 10	Soprano
Barcarde				StarbrightCover 2, 6
Bety Ross	Barcarole 6	Garza 9	Monument 5	Sun Gold 4
Bitzeng Gold Anderstay Final State Blazing Gold Anderstay Final State Blazing Gold Anderstay Final State Anderstay Final State Blazing Gold Anderstay Final State Blazing Gold Anderstay Final State Blazing Gold Final State Blazing Gold Final State Final State Blazing Gold Final State Fina			MoonglowCover 2, 9	Sunburst 6
Mazen DeLuxe 1 Colden Annuersary Mrs. Roy Sunrayside Sunra	Bittersweet11	Gold Lode 4	Mrs. R. A. Walker12	Sunkist
Bonton	Bonnaffon Deluve			Sunnyside 7
Dourboo	Bonton11	Golden HarvestCover 2, 7	N	Surray
Bronze Brocade			- 1	Sylvanna11
Bronze Brocade		Golden Mensa 7		-
Bronze Balkeley	Bronze Brocade11	Golden Mistletoe 4		
Bronze Calif. Daisy 11			Nuggets6	The Titan
Bronze Frick 5 Good News 4 Oak Lef 5 Store Goldsmith 12 Granite State 8 October Bronze 11 Umake 12 Orchof Bronze 11 Umake 12 Orchof Bronze 11 Umake 12 Orchof Bronze 12 Orchof Bronze 13 Orchof Bronze 14 Orchof Bronze 15 O	Bronze Calif. Daisy11	Golden Surprise 7	0	Thyra
Bronze Goldsmith 12			_	Tobin's Tellow4
Bronze Minust	Bronze Goldsmith12	Governor Lake12	October Bronze11	
Bronze Mistletoe 5 Gypsy	Bronze Minust			Usona10
Bronze Riviera 12	Bronze Mistletoe 5		Orchid Beauty10	V
Bronze Supreme			Orchid Queen 5	Valencia10
Came	Bronze Supreme		P	Vesper 8
Hasegawa Pink		Harvester 4	and the second second	
Cameo 9 Capt Cook 9 Capt Cook 9 Carolyn Yosick 11 Yel Carolyn Yosick 12 Yel Corolyn Yosick 12 Yel Corolyn Yosick 12 Yel Caro		Hasegawa Pink	Pink Calif. Daisy10	• •
Capt Cook	С		Pink Chief	Walter Engle
Cassandra	Cameo		Pink L. I. Beauty10	W. H. Buckingham10
Cashardra		III	Pink Mistletoe	White Doty
Illin Gold 7 Pixte Cavalcade 12 Illin Honey 2, 11 Popcorn Cover 2, 8 White Mensa Celestra 4 Illin Honey 2, 11 Princeton 7 White Mistletoc Champagne Cover 2, 7 Illin Snowdrift 2, 9 Priscilla 9 White Norma Champagne Cover 2, 7 Illin Snowdrift 2, 9 Priscilla 9 White Norma Champagne Cover 2, 8 White Rayonante Champagne Cover 2, 7 Illin Snowdrift 2, 9 Priscilla 9 White Norma Chicago Pearl 9 Indiagold 7 Purdue 4 White Visona White Usona Chicago Pearl 1 Indiana Market 5 Queen of Pinks 10 White Visona Chicago Pearl Constellation 6 Indianapolis Broze 5 Queen of Pinks 10 Winterset Constellation 6 Indianapolis Pink 5 Queen of Pinks 10 Queen's Lace 1, 12 Y Constellation Cover 2, 9 Indianapolis Pink 5 Queen's Lace 1, 12 Y Constellation Cover 2, 9 Indianapolis Pink 5 Queen's Lace 1, 12 Y Priscilla Priscillation Priscillation Priscillation Cover 2, 9 Indianapolis Pink 5 Queen's Lace 1, 12 Y Priscillation Prisc	Cassandra11		Pinocchio 8	White Fredia 9
Clestra		Illini Gold 7		White Frick
Chartanooga	Celestra 4		Princeton 7	White Mistletoe 5
Christmas Cheer		Illini Snowdrift		White Norma
Christmas Cheer				White Supreme
Constellation		Indiana Market 5	^	White Usona
Cordova				Winterset
Cotton Top		Indianapolis White 5		
Cream Dot		Indianapolis Yellow 4	R	•
Red Daisy				Yel. Arcadia 6
Dark Pink Bulkeley 10	Crystal BeautyCover 2, 9			
Dark Pink Bulkeley	ь.	_		Yel. Bushnell 7
Dark Pink Bulkeley			Red Rolinda11	
Dark Pink Norma	Dark Pink Bulkeley10 Dark Pink Iewell	Jessie 9		Yel. Chattanooga 4
Dark Pink Riviera 10	Dark Pink Norma10			Yel. Cordova 7
Dark Pink Supreme	Dark Pink Orchid Queen 5			Yel. Daisy 6
Debonair 12	Dark Pink Supreme10			Yel. Dot
Comparison of Content of Conten	Dark Pink Valencia	Kay Tashima12		Yel. Irene
December Gold		L		Yel. L. I. Beauty 7
Detroit News 5			Royal Queen 9	Yel. Monument 4
Dr. Enguehardt				Yel. Queen 4
L. I. Beauty 9 Yel. Rolinda Yel. Shasta Sarrong 12 Yel. Show Ecstasy 9 Major Bowes 5 Seafoam 9 Yel. Supreme Ed. Seidewitz 5 Mamoru 12 Sea Gull 8 Yolanda				Yel, Revelation
Ecstasy 9 Major Bowes 5 Seafoam 9 Yel. Supreme Ed. Seidewitz 5 Mamoru 12 Sea Gull 8 Yolanda			_	Yel. Rolinda 7
Ecstasy	E	M		
Ed. Seidewitz			Seafoam9	Yel. Supreme 7
Enchantress				Yukon
				Yuleflame 7

